VIEWS

OF

A. J. WARNER, OF MARIETTA, OHIO,

GIVEN BEFORE

THE COMMITTEE ON BANKING AND CURRENCY

IN RELATION TO

The resumption of specie payments.

WASHINGTON, D. C., *April* 22, 1878.

Mr. EWING. As you are understood to have given a good deal of attention and study to the question of resumption of specie payment, we have invited you here for the purpose of obtaining your opinion as to whether it is practicable and consistent with the public welfare to resume specie payment on the 1st of January, 1879. Do you think that it is practicable?

Mr. WARNER. I do not think it at once practicable and consistent with the general welfare of the country; nor, indeed, do I think it at all practicable to accomplish and maintain resumption, except by reducing the paper circulation down to such a limit as would be indicated by the exercise of the choice of the people between coin and paper. That is, an equilibrium in the circulation itself must be first restored if resumption is to be maintained, and by equilibrium I mean such a state of the circulation as would be indicated by as many people on the average taking coin to the Treasury or the banks for paper as would take paper for coin. That is a state not reached, of course, at once. That is a choice not expressed finally on any given day, nor once for all, but it is a choice exercised from day to day, from time to time, in all the business operations and transactions of the country—to go on from month to month for one or two years at least. To make myself better understood, I will illustrate my view of the question in this way: When a currency is made convertible into metallic money, or the money of the world, then the quantity of circulation which any country will possess or can maintain is governed solely by the laws determining the distribution of metallic money over the world. No direct act of legislation, I take it, can make it more or make it less. The first question, then, that arises is, how large a volume of *convertible* currency would be maintained in the United States now; and, secondly, how much of such a volume (when left to the free operation of the choice of the whole people, to be exercised as I have indicated) will be coin and how much paper. I conceive resumption, then, to consist in nothing short of providing coin to the full extent that the people may prefer coin to paper, and in paying it out in substitution for the paper and retiring the paper down to that limit. I think resumption can be maintained in no other way. To illustrate further, suppose that the volume of currency which would nat-

urally fall to us in the maintenance of the general level of prices to be seven hundred and fifty million dollars, and suppose further (for the sake of illustration) that we had that amount in circulation now, and that it was all coin, seven hundred million dollars of full coin and fifty millions of subsidiary coin; and suppose that Congress should decide that the country needed more currency, and should direct the Secretary of the Treasury to purchase, with bonds, one hundred million dollars of the precious metals from other countries, and pay it out in the course of payments from the Treasury, it is a very plain proposition, I think, that the coin so paid out in excess of the volume that would naturally fall to us would leave the country after being paid out—not immediately as paid out, but certainly soon after. The first effect of making our circulation redundant, as compared with the currency of the world, would be to raise prices, when exports would be checked, imports increased, and the exchanges turned against us. Then the excess of coin would go away. I conceive that that law holds good and would be just as true with our channels of circulation filled with paper money. If, on the top of legal-tender paper, the Secretary pays out coin, one of two things must necessarily take place; either the coin will displace the paper, and remain as a part of the circulation of the country, in lieu of paper, under the operation of the choice of the people (as I have designated), or, if the paper is kept in circulation per force of its legal-tender quality, then the coin will as surely leave the country again as it would if we had already coin in circulation, and the Secretary should pay out more coin on top of that. That is, the coin will not stay in the country as an *addition* to a full paper circulation.

The CHAIRMAN. You mean irrespective of the question of what is termed the balance of trade?

Mr. WARNER. I conceive that that in itself would determine the balance of trade against us. That is the way that the gold would be sent abroad. The first effect of an increased volume of money is to raise prices, and thus to operate to determine an adverse balance of trade when the exportable part of the currency goes away. I will say further in that connection, that if it should turn out, as the Secretary of the Treasury seems to assume (and, apparently, very many people in the country), that on the announcement of resumption the people will not take the coin, but will choose to retain the whole six hundred and fifty millions, or all the paper now outstanding, rather than have any part of the circulation coin, then, also, would the coin, when paid out, leave the country for the same reason; and resumption, therefore, on that supposition might just as well be begun to-day, with the coin which the Treasury now possesses, as next January; provided always, of course, that our distributive share of the money of the world would not be greater than our present volume of paper, together with the fractional currency and the coin already in circulation on the Pacific slope, and the reserve that the Treasury now has. Or, to state the proposition generally, coin paid out from the Treasury, whether on top of paper or coin already in circulation, in excess of what would be our distributive share of the currency of the world, as determined by the laws of trade, unless allowed to displace a part of that already in circulation, will not long stay in the country, but flow to other countries. This I understand to be the law of currency, the law as given by writers on monetary science, and as attested by the experience of this and all other countries. As to what our distributive share of the money of the world would be now or at any given time cannot, of course, be set down beforehand. The quantity of such a currency is determined by trade, not trade

by the quantity of the money. Still I think there are data from which we can arrive at an approximate idea of the volume.

Mr. EWING. Give your views as to what you think the volume would be.

Mr. WARNER. I made some time ago some figures on that question, taking as a starting point our currency at different periods before the war, as in 1854, 1858, 1860, and 1861. I wish to premise, however, with reference to all estimates made as to the quantity of coin in the country at any given time, either in 1861 or before that time or now, that we must take all these estimates with a good deal of allowance; but I have followed the estimates given in the Mint and Treasury reports as probably nearer correct than any others. In 1854 the total circulation of the United States, as compiled from the Treasury reports, was, in round numbers, four hundred and fifty-four millions. Of that, two hundred and four millions was in bank-notes, and the balance in coin and bullion. The coin was divided into coin in circulation, one hundred and ninety-one millions, and coin-reserve in banks, fifty-nine millions. In 1857 the total circulation——

Mr. HARDENBERGH. Before or after the panic?

Mr. WARNER. Before suspension. Suspension took place on this state of the currency. In 1857 the total currency of the country was four hundred and sixty-two millions. Of that, two hundred and fourteen millions consisted of bank-notes; the balance of coin. The coin was divided into specie-reserve in banks, fifty-eight millions (there was, as will be seen, an increase in bank-notes and a decline in bank reserves before suspension in 1857), and coin in the circulation of the country, one hundred and ninety millions, a decline of only one million from 1854. In 1861 the total circulation of the country (which includes actual circulation, reserves, hoards, and everything) was four hundred and eighty-seven millions, two hundred and two millions of which consisted of bank-notes, and the balance of coin, divided into specie reserves in banks, eighty-seven millions, and the coin in circulation, one hundred and ninety-eight millions. In that year, or before the end of the year, there was a general suspension. In other words, there was in the country in 1861 when the suspension of specie payments took place, \$1.41 in coin to \$1 paper. But, comparing the Secretary's estimate of the coin there will be in the country on January 1, 1879, I find that, if there is accumulated by the Secretary and the banks all the coin which the Secretary calculates will be accumulated, we will have 40 cents of coin in the country to \$1 of paper. That is, the banks suspended in 1861 with \$1.41 of coin in the country to \$1 of paper money, and we will have in 1879, 40 cents in coin to \$1 in paper, upon which state of facts Mr. Sherman proposes to resume.

Mr. EWING. What was the percentage between coin and paper when we suspended in 1857?

Mr. WARNER. We had in the country in 1857, when we suspended, \$1.16 in coin to \$1 in paper. On that point the Secretary's comparison of the strength of the United States Treasury and of the banks with other countries—foreign moneyed institutions—is, it seems to me, liable to lead to error (and I believe a serious error), in this: that it does not take into consideration the condition of the circulation in the different countries. For instance, to restore even the equilibrium of the currency which existed in 1861 will require considerably more coin than it is expected the Treasury and banks altogether will have by January, 1879.

Mr. EWING. How much more?

Mr. WARNER. I will figure out the percentages and give them to the committee again. As to the proportion of coin and paper in circulation in different countries (taking the estimates made by Mr. Ernest Seyd), there is in Great Britain about $3.33 of coin to $1 of paper; in France (according to the last report I have seen—that of January, 1878), $3.10 in coin to $1 in paper (taking the total circulation), and in Germany, a little over $4 in coin to $1 in paper. Beyond those countries I have not carried the investigation in that respect, but I will review these figures and give the correct percentages to the committee.

Mr. HARDENBERGH. How then do you account for the depressed condition of affairs in Germany rather than in France, if the reserve is so much greater in Germany than it is in France?

Mr. WARNER. It is not the reserve which is so much greater; it is the proportion of coin to paper in the entire country. But that is not among the causes of the depressed state of trade in Germany. There are other causes for that. It is mainly due, I think, to the demonetization of silver. Germany's own economists, I believe, now almost universally agree on that.

Mr. EWING. That is, to the contraction of the currency by the demonetization of silver?

Mr. WARNER. Yes; and the changing from a cheaper to a dearer currency—from silver to gold, by a process that enhanced the value of gold—the contraction involved in the change from a cheaper to a dearer currency.

Mr. EWING. Just the process which we have been going through for the past four years.

The CHAIRMAN. Have you given any thought to the question as to the ability of this country to maintain resumption, growing out of the difference in the character of the paper currency that exists?

Mr. WARNER. Yes; I have considered that, and I think this is true: When a paper currency is, in fact, convertible, readily and easily convertible, then there is the least difference in the world between a paper that is legal tender and one that is not. The force of legal tender is not exerted, does not come into play, when the currency is readily and easily convertible into metallic money, which is a legal tender. The legal-tender quality comes into force at the point and at the instant that convertibility either fails or is made difficult or uncertain, and not before. The difference will depend, in my judgment, not so much on the fact that the currency is legal tender as on the fact that convertibility will be made easy, and that there will be no fear of failure of convertibility to-morrow. As long as bank-notes are actually and easily convertible, then the difference between them and legal tender is but little, because the legal-tender quality does not come into play, except at the point where convertibility fails or becomes uncertain.

Mr. EWING. That is, it is your opinion that it will require as large a reserve to maintain resumption as if the whole paper currency was bank currency?

Mr. WARNER. I think a somewhat larger proportion of paper, greenbacks and national bank-notes, will be maintained than there would be of the old bank currency; resulting, not so much from any legal-tender quality, as from its uniformity and the sustained confidence of the country that the paper will be as good to-morrow or next week as it is to-day, and that if convertibility fails its use as money will not be lessened; but I should not expect to see the proportion very much more than it would be with readily convertible bank currency under the old system. You will observe, from the data I have given, that the paper

part of the circulation seldom exceeded 45 per cent. of the whole circulation of the country. If it exceeded 45 per cent., we find (I think, too, invariably, so far as I have examined different periods), that suspension took place before it reached 50 per cent. of the whole. Generally from 40 to 45 per cent. of the whole seems to have been the safe limit of bank currency before 1861. But I will add this further: that, if it should prove that a very much larger percentage of the whole circulation would be paper, then there can be no possible gain now in accumulating a large stock of coin for the purpose of resumption. To illustrate that better, let me give these figures. It has been proposed, I see, to retain six hundred and fifty millions of paper after resumption. There is also in circulation fifty millions of fractional currency and subsidiary coin; and, if we suppose that there are fifty millions of coin on the Pacific slope in circulation (which is an overestimate), and if we assume that eight hundred millions of the currency of the world would be our distributive share, and no more, then you will see that there is only room for fifty millions more; and if you put out one hundred millions, the result, as I have stated, must be, first, a rise in prices, which will affect exports and turn the exchanges sufficiently against us to send the excess of currency away, just as when a vessel is already filled, if more fluid be added, it will overflow; and, therefore, I can come to no other conclusion (and so far as I have been able to study the question I do not see how any other conclusion can be reached) than that coin, put out in excess of what will be our distributive share of the money of the world, will displace paper or, on the other hand, if paper is maintained in circulation by force of the legal-tender quality, or because it is preferred to coin, then the excess of coin will flow away, and resumption might as well begin to-day as next January; and to accumulate coin would be a detriment to the world. I do not believe, however, that paper, to any such extent as now claimed, would be preferred to coin if left to the free operation of choice. I gave the committee the circulation in 1854, 1857, and 1861. I did not consider in that connection the conditions, or the change of conditions, of our commerce, or of the currency of the world, that would tend to affect, one way or the other, the quantity of circulation which we would now probably have. There are four things, I think, which chiefly influence, or are controlling in that matter: First, the increase of population since 1861; second, the increase in trade, commerce, and national wealth since 1861; third (and a very important element), the additions to the stock of the precious metals in the world from the mines; and fourth, the effect of the issue of inconvertible paper in this and other countries. For I think it is a principle which can hardly be questioned, that when any country issues an inconvertible paper, and thereby displaces the coin which was in circulation, which coin goes to swell the volume of coin in other countries, to the extent that coin is displaced by such issues, to that extent the effect on the total circulation of the world is precisely the same as if so much coin was suddenly created and added to that already in circulation; and, therefore, in considering the distributive share of the world's money any country would possess, we cannot ignore the effect of the inconvertible issues of such countries as Russia, Austria, Italy, Spain, and other States, as well as our own. Then a fifth consideration (and one which may be very controlling) is whether more States of Europe will or will not demonetize silver, because it will be very readily granted, I think, that our distributive share of the money of the world, with gold alone as that money, would be a very different sum from that which would fall to us with both gold and silver

as money for all countries. Probably the sum would be double in the one case what it would be in the other. All the estimates I make, therefore, will be on the basis of bi-metallism. The increase in population in the United States since 1861 has been, say, fifteen millions, or 45 or 46 per cent. The increase in national wealth, trade, and commerce is a little more difficult to get at; but, divided into its different parts, we find the increase in incomes from 1860 to 1869 was about 75 per cent. According to our census returns our manufactures increased from a little more than one thousand million dollars in 1850, and not quite two thousand millions in 1860, to four thousand two hundred and thirty-three millions in 1870, or an increase in ten years of nearly 125 per cent. The estimate of 1870, however, was in currency, and therefore there should be the proper deduction made. The increase in the value of real and personal estate, between 1860 and 1870 (we have no data to go beyond that), was nearly 150 per cent.

Mr. Bell. That is on a currency basis, too?

Mr. Warner. On a currency basis, too. Taking railroads, there were but about thirty-one thousand miles of railroad in 1861 against seventy-six thousand miles now, or an increase of nearly 150 per cent. The increase in the precious metals for the world since 1861 (according to the table given in the parliamentary report on silver), and adding $350,000,000 as the production of 1876 and 1877, was about twenty-six hundred million dollars. The coin equivalent of the inconvertible paper issued in Europe and the United States can hardly be taken at less than fifteen hundred millions; the total quantity given by Ernest Seyd is somewhere from two thousand million to twenty-two hundred and fifty million dollars in 1876. I put the coin equivalent of that, I think, rather under than over, by giving it at fifteen hundred million dollars. In 1876, the population of England, France, Germany, Switzerland, Belgium, Holland, Denmark, and Sweden (generally put down as the creditor nations of Europe) was one hundred and twenty-seven millions. These states are all coin states, and, according to Mr. Seyd, possessed a circulation of $3,400,000,000 of metallic money. The rest of the states of Europe, usually designated as the indebted states, have, according to the same authority, but five hundred and fifty millions of metallic money, but have a population of one hundred and eighty-seven millions. The difference in the circulation is made up by inconvertible currency. It is much less per capita, it will be seen, than in the other countries; and, except the $550,000,000, the currency of this large population is made up of inconvertible paper, and all are indebted states. Now, putting together these different influences which would affect the volume of money that would circulate now in the United States (and I grant that there are other influences), and counting all at 50 per cent.—that is, as having the effect of increasing our currency 50 per cent.—that would give us about seven hundred and thirty millions of dollars as an equivalent currency in 1878, when compared with the currency of 1861.

Mr. Ewing. Do you not think that an underestimate?

Mr. Warner. I think it may be an underestimate. I have made it under rather than over. It may happen that a larger volume of inconvertible paper will circulate in a country without raising prices above the metallic level than of a convertible paper. The movement of the precious metals is determined principally by movable commodities, and a country where the larger part of the wealth is fixed will have proportionally less metallic money than one the larger part of whose wealth consists in movable commodities, and commodities that will bear distant transportation. This, as well as the habits of the people,

I think, has much to do in determining so large a currency to France. Hence, a country with most of its wealth in fixed forms, or so situated as to be without facilities for the easy movement of its exportable wealth, might have a certain amount of currency comparable with its fixed wealth unaffected by international trade. Such was the situation of the first colonies on this continent. They had nothing to export, but were in constant need of imports, and consequently they had little money. A resort, under such circumstances, to some well-regulated inconvertible currency would be a great gain, and in fact all the colonies—some of them in a cumbersome way—adopted such a currency. Franklin's idea of paper money doubtless grew out of this experience. But of a convertible currency we should not expect to see more than seven hundred and fifty, or at most eight hundred millions, both coin and paper, in the present state of our trade, and that for other reasons. Taking another line of investigation, I arrive at very nearly the same result (a line of investigation perhaps more reliable in some respects). Taking our paper currency at six hundred and fifty million dollars now, with fifty millions of subsidiary coin and fractional currency, there is at this time almost no premium on gold, but silver bullion is at a discount as compared with paper of, say, 6 to 8 per cent. The fact of silver bullion being at a discount is in itself positive, direct, and certain proof that our currency is to-day deficient, rather than redundant, as compared with bi-metallism for the world. If it was not deficient, then, with the restriction on coinage removed, silver would as certainly flow into this country now as that water will flow to a lower level unless it is prevented, as silver is now, through the restriction on coinage. Now, taking the average of premium and discount on gold and silver, and the two metals combined, as compared with our circulation, are at a discount rather than at a premium. With unrestricted coinage a state of equilibrium would be established by an inflow of coin, which would, undoubtedly, in the present ratio, be silver.

Mr. Ewing. But the restriction on coinage does not impair the force of the argument.

Mr. Warner. Not at all; the argument is the same; but I call your attention to this one point which I think has great force, and is very direct evidence, namely, that at the point at which the average of premium and discount of the two metals (gold and silver) touched the zero line of our currency (somewhere a year back) when perhaps the volume was fifty millions greater than it is now, that marked exactly, for that time, the equivalency of our currency with the currency of the world in the condition of trade existing then; any variation in our trade would, of course, vary the quantity of currency.

Mr. Ewing. We had then about sixty millions of paper more than we have now. That would make seven hundred and ten millions in paper and fifty millions in fractional currency—seven hundred and sixty millions.

Mr. Warner. Then include in the calculation whatever coin there is in circulation in the Pacific States that would remain.

Mr. Ewing. Say forty millions. That would make the aggregate of our currency to meet the equivalent currency of the world a year ago eight hundred million dollars.

Mr. Warner. Yes; but in that connection I think this fact should be considered: Since 1873–'74, our total volume of paper has not been in actual circulation—has not been effective in determining prices. Paper that is for the time being withdrawn, hoarded in bank vaults, has no more effect on prices and no more influence on trade than a currency

not in existence at all. But, on the other hand, the moment there was a revival in trade and business, this currency would be called out. Its effect, however, would be mainly taken up, I think, in the increased demand for money; that is, an increase in the business of the country.

Mr. EWING. What, in your opinion, is the amount of coin which the people will take, if left to their free choice, under easy and certain convertibility?

Mr. WARNER. My own judgment is that it would not be safe to rely on any less than 50 per cent. of the whole circulation being coin. It would be more likely to be more than less. In that I include the reserves of banks, the hoardings in the country, and the uses generally for which coin will be preferred to paper. And I base that on our experience in this country and on the experience of other countries, not relying, as many do, on the faith that when the people find they can have coin they will not want it. I do not wish to be understood, however, as giving the opinion that this 50 per cent. of coin would be required at once, but in the course of one or two years. The demand for coin would continue from month to month until that state of equilibrium in our circulation was reached, indicated by as many people taking coin to the banks or the Treasury for paper as would take paper to the banks or the Treasury for coin. That I would call the state of equilibrium of the currency.

Mr. HARDENBERGH. How do you reach that?

Mr. WARNER. In my judgment it can only be gained by the displacement of a part of our present volume of paper by coin.

Mr. HARDENBERGH. Then you are opposed to any further issue of paper by the government?

Mr. WARNER. That involves other considerations; but if I were asked my judgment upon that, I should say I do not think more paper now was the remedy we needed.

Mr. HARDENBERGH. Are you in favor of early resumption on the part of the government?

Mr. WARNER. I am not. I am in favor, however, of maintaining the equivalency of coin and paper; maintaining the paper at a level with metallic money by limiting the volume of paper to the present amount, or to an amount not greater than would be our distributive share of the currency of the world; on this principle, that an inconvertible paper currency actually in use, performing all the functions of money, if less, or not greater, in amount than would be the distributive share of the currency of the world for that country will always be on a level with metallic money, and if it does not fill the channels of circulation full, coin will flow in and fill the vacuum. The vacuum, however, must first be made. Coin will go to a country only when it will buy there more movable commodities than elsewhere.

Mr. HARDENBERGH. Do you find any positive equalization of this distributive share which you speak of? Is it not affected more or less by wars?

Mr. WARNER. Certainly; it cannot be fixed beforehand; it is impossible to do that. That would require omniscience. It fixes itself, or, rather, is determined by the laws of trade. Wars, good or bad crops, active or stagnant production and trade, all operate to affect the flow of the precious metals. But it is quite possible to fix the limit of paper *within* what would always be our distributive share of the world's money. Taking the condition of the country now into consideration, it seems to me that the part of wisdom would be to maintain our paper at a level with metallic money, on the principle of limitation of volume.

That would involve no further contraction, and no further alteration in the value of money.

Mr. HARDENBERGH. That is resumption.

Mr. WARNER. There is a very great difference, I think, between that and resumption. I would maintain the value of paper at the coin level by limitation of volume instead of by convertibility or resumption.

Mr. HARDENBERGH. Equalization is resumption.

Mr. WARNER. In my judgment, resumption has only begun when you have reached the point of equalization. Then the work of resumption really begins, and consists in providing coin and actually paying it out in substitution for paper—not in addition to it—to the extent that people may choose coin to paper, and retiring the paper.

Mr. EWING. What is the practical difference between equalization and resumption?

Mr. WARNER. The practical difference is this: assuming that eight hundred millions of dollars, or any other sum you may take, would constitute our distributive share of the money of the world (as I have before explained), then, if the currency is convertible, it will conform to that volume. Now, if an inconvertible paper circulation be limited in amount to a sum no greater than the eight hundred million dollars, then it will not fall below the level of metallic money. But that is a very different thing from resumption. For, having assumed our quota at eight hundred million dollars, if you make it convertible then you at once lay it open to the choice of all the people of the country (a choice to be exercised, as I have said, in all their business transactions from day to day and from month to month), as to what part of the eight hundred million dollars they will have in coin and what part they will retain in paper. Then, providing the coin and paying it out in substitution for the paper, and retiring the paper to the extent that the people may prefer coin to paper, is the accomplishment of resumption, and, in my judgment, nothing short of that is; and when that is done I think it will be found that at least half—more rather than less—of the entire volume will be coin, or in an assumed volume of $800,000,000, $400,000,000 of it, at least, would be coin, and not more than $400,000,000 paper. Resumption would be accomplished on that supposition, then, when the $400,000,000 of coin had been provided and all paper in excess of $400,000,000 destroyed. The part destroyed, of course, would be the greenbacks. The substitution of coin for paper necessitates, in the very operation, prolonged contraction, and, in my judgment, one to two years more of depressed business and trade would follow such a course. The very process of gathering up paper and presenting it for coin, and getting coin back, involves, practically, more or less temporary contraction.

Again, if in the course of business as large a part of the whole circulation should be required to be coin, as existed in 1861, or $1.41 coin to $1 of paper, then resumption will have been fully accomplished only when that proportion of coin has been provided and the paper in excess of $1 to $1.40 of coin retired. And in this connection it is pertinent to consider that before 1861 we seldom had a truly convertible currency, even when *called* convertible.

Mr. EAMES. If the amount of paper currency in circulation is equal to coin in its purchasing value, is there any probability that any considerable portion of it will be presented for redemption after resumption?

Mr. WARNER. In my judgment it will. But I will repeat that if it should turn out that in the exercise of their choice the people do not wish coin, but prefer paper, then you can as well resume to-day as next

January, because you have more coin now in the Treasury of the United States and in the banks, if added to the present paper circulation and the subsidiary silver coin, than will make up our share of the coin of the world, and all in excess of that will leave us after it is liberated.

Mr. EAMES. State whether or not, in the transaction of business, paper currency is not more convenient than coin; and for that reason, if it is equal to coin, will it not be preferred and kept for the purposes of business to the extent that it is required?

Mr. WARNER. It will to the extent that it is required; but in my judgment that extent will not exceed (when the state of equilibrium has been restored) more than 50 per cent. of the entire circulation—less rather than more. As this same question was prominently up before the secret committee of the English Parliament in 1819, I should be glad to read the opinions of two or three witnesses as then expressed, in regard to it—opinions which, if interpreted by the experience in England which followed, will, I think, throw light on the question now before this country. Mr. Alexander Baring expressed his decided belief that it would not be safe for the bank to resume until a very considerable part of the circulation in England had become coin. Mr. Harmon in his evidence stated "that at that period (1817) he was induced to flatter himself that if the doors of the banks were opened, the public would hardly know whether they were open or shut—that was in a moment of tranquillity—that people seemed indifferent about gold; and that instead of coming to the bank for gold, they brought their gold to the bank; that remained until the financial operations in France began, and as soon as they were talked of the tide turned."

Mr. Stuckey [says the report], a gentleman very extensively connected with banks in the county of Somerset, gave evidence to the following effect: "In the latter end of the year 1816 and beginning of 1817, we had a circulation of coin for some months; it cost us at that period nearly one hundred pounds to transmit a surplus quantity of coin to London, of which four-fifths in value, at least, consisted of gold. We could not get rid of it in the country, our customers preferring our notes. In the spring of 1817, I brought with me to town near 1,000 guineas from one of our banks; on taking them to our London banker, he requested as a favor I would not leave them there. They had lately sent so many to the Bank of England that they did not like to trouble them any more; besides, the bank only took those which were of full weight."

Now, as to what followed. In 1817, the Bank of England gave notice that it would pay all its one pound and two pound notes dated prior to 1813 and 1816. It began payment. The testimony of Mr. Harmon and of Mr. Stuckey related to the beginning of that payment. The bank paid out, during the first part of 1817, but little; but before the middle of 1818 the bank had paid out nearly £7,000,000, and stopped. Three-fourths of the amount paid out, Mr. Joplin says, was traced directly to the French mints.

The committee, in 1819, reporting on this evidence, say:

Notwithstanding this evidence, it must be admitted that no satisfactory conclusion can be drawn from the experience of so short an interval as that which is referred to by Mr. Harmon and Mr. Stuckey. Great uncertainty must prevail with respect to the amount of gold which may be required for the purposes of internal circulation.

Also,

Your committee are satisfied that the bank, in undertaking to pay their notes in cash, under the circumstances above mentioned, acted from the best motives, and from a belief that the measure would tend to facilitate the complete resumption of payments in specie. Unfortunately, it has had a contrary effect.

In 1819 the resumption act was passed, requiring the bank, on the 1st of February, 1820, to commence paying its notes in bullion at the market-price, instead of at the mint-price—the term which they use there.

From February, 1820, when the bank began paying bullion for bank-notes, until 1823, according to Mr. Joplin, the bank imported into England from 20,000,000 to 30,000,000 pounds sterling. During that period the mint issued £19,000,000 in gold coin, and there was retired over £21,000,000 of the paper currency. The total bank currency in 1818 was £48,000,000, and in 1823 it was about £27,000,000, £21,000,000 and over having been retired. It was well known that guineas, when first paid out in 1820, were largely hoarded. The state of equilibrium of the currency was not reached until 1823, and at that time the paper part of the currency was reduced, as shown, from £48,000,000 to £27,000,000, the metallic part having increased till there was much more of it than of paper. It is hardly necessary to add that the period of the greatest distress in England came *after* the commencement of resumption in 1820, the period known as the *great agricultural distress.*

Mr. BELL. Resulting from the depression in the prices of property and wheat?

Mr. WARNER. Yes, sir. According to Mr. Atwood, Sir James Graham, Mushet, and others, prices fell all the way from 35 to 50 per cent., and some things even more.

Mr. EWING. Mr. Tooke's tables showed the fall?

Mr. WARNER. Yes; it showed the general fall in prices that took place.

Mr. EWING. What was the extent of the diminution of credits during that time?

Mr. WARNER. That point I deem a very important one in the consideration of this subject. Credit was almost entirely overthrown; and it is due to that fact, very largely, that prices fell so much in England, and that prices have fallen so much in this country. To give a summary view, as I understand it, of that period between 1797 and 1816: England had forced out of circulation and out of the country about £30,000,000 of gold, by the issue of inconvertible paper money. The gold had gone into France, and other countries in Europe which maintained a metallic circulation. Austria displaced about $100,000,000; Russia, $75,000,000; Prussia, from $40,000,000 to $50,000,000; and other states more or less, during the Napoleonic wars. All the coin displaced in these countries went into the few countries still maintaining coin; and, in consequence, the value of metallic money itself was greatly depreciated; or, in other words, prices generally rose. The failure to take that into consideration was, I think, where Ricardo made his great mistake in giving the opinion that resumption in England involved only a difference of 3 or 4 per cent. After 1816, when all these countries together commenced the withdrawal of their paper money, and when a redistribution of metallic money took place in Europe, gold itself was greatly changed in value, as compared with commodities generally. At the same time that money was undergoing diminution in quantity, and a consequent increase in value, credit was being undermined. Credit, which with currency in a state of rest would be secure, always suffers when changes of that kind are going on. To illustrate that further, where there is a given amount of currency in a country, and things are in a state of rest, credit assumes a certain relation to the currency. Authors have variously estimated the effect of credit. McLeod says credit is ten times the amount of all the money, and Webster said it was more to us than all our mines of gold and silver. But the moment that money is contracted in quantity, credit is contracted in a far greater ratio; and if the contraction of the currency is sudden, and takes place to any considerable extent, it very often results, as we have many times seen, in an almost

entire overthrow of credit. I think one of the principal reasons of the low prices of real estate, and property generally, now in this country, at least in many parts of the country, is due to the fact that while the contraction of the money volume is going on, credit is almost entirely neutralized, and has little or no effect in maintaining business or prices.

Mr. EWING. And the contraction of the currency causes a shrinkage in values?

Mr. WARNER. Undoubtedly; and the effect of contraction is multiplied by the overthrow of credit which it causes.

Mr. EWING. And the overthrow of credit reacts on prices?

Mr. WARNER. Yes; and often suddenly and powerfully.

Mr. EWING. The primary cause is the contraction of the currency, and the consequent shrinking of values, making the position of every man who uses credit uncertain and unstable; and that uncertainty and instability are magnified, and thus credit is contracted three or four fold?

Mr. WARNER. I think that is true.

Mr. EAMES. You mean the contraction of the currency below that point required for business purposes, do you not?

Mr. WARNER. It is very seldom that a country has more currency in that sense than business absorbs. I take it that if we should double the volume of inconvertible paper money the country would very soon absorb it. Prices would rise, undoubtedly, and the money volume would be absorbed.

Mr. EAMES. Do you mean to say indefinitely and to any amount?

Mr. WARNER. Yes. Suppose $800,000,000 to constitute at a given time our currency. Then if that volume should be doubled or made $1,600,000,000, the whole would have no greater value than the $800,000,000 had, and would not until the increase of business had changed the relations between the quantity of commodities and transactions and the quantity of money. The effect otherwise would be consumed in raising prices. If at the same time that you doubled the money the business of the country (the quantity of commodities and transactions) were doubled, there would be no change in prices, except what was incident to the act of changing. There can be no general rise of prices in any country, and no general fall of prices, except it comes from a change in the quantity of money. Prices of commodities vary, as compared with one another, continually; but a general fall or a general rise means, in effect, a diminution or an increase in the quantity of money, and consequently a change in its value. The diminution of the quantity of our money has not been at all in proportion to the decline in values, and the difference is made up, I think, in two ways: first, the change in the value of metallic money itself, by the demonetization of silver in certain countries, and by a partial redistribution of metallic money, caused both by the demonetization and by a withdrawal of paper money in this and other countries, and the demand made for metallic money to take its place; but also largely from the breaking down of credit which so sustains prices when based upon a stable currency. If we were to issue $100,000,000 of inconvertible money and afterward to reduce it suddenly by $50,000,000, the same consequences would follow as would result from a sudden reduction of $50,000,000 in the volume of coin. And I may state generally what I understand to be a law of currency—a law which bears directly upon this question of resumption. It is this: Having, say, $650,000,000 of paper now in the country, to destroy any part of that and buy coin from other countries to take its place must necessarily produce the same consequences and have the same effect on business

and prices as would be the case if, having a full volume of coin now in circulation, we should propose to annihilate, step by step, as much of the coin as we propose to retire of paper, and to buy other coin from other countries to take its place. To illustrate my meaning better: If England now should determine upon the annihilation of $250,000,000 of her gold, with a view of buying other gold to take its place, the effect on prices and business of such a step in England could not be different from the effect in this country of destroying that amount of our circulation, and buying coin from other countries to take its place.

Mr. EWING. You think, then, that if the people are left to their free choice under the operation of resumption they will require as much coin as paper?

Mr. WARNER. I think that when the state of equilibrium has been reached, we will have at least 50 per cent. of the whole circulation (reserves, hoards, and for other uses) in coin, and not more than 50 per cent. in paper.

Mr. EWING. The proportion of coin to circulation in 1861 and 1857 was about 63 or 64 per cent.

Mr. WARNER. In 1860 we had just about 60 per cent. coin to 40 per cent. paper. In 1857 it got down as low as 53½ or 54 per cent. coin to 46½ paper, and then suspension took place.

Mr. EWING. And you think that suspension took place from the diminution of coin?

Mr. WARNER. Yes, sir. Just before that there was an increase of paper—an increase in the quantity of the currency of the country—and exchange was turned against us, coin went away, and then the suspension took place. That is an important point, I think, in the consideration of the currency. It operates in this way: when banks issue the currency, if there is at the one period an increase in the bank's reserves of, say, $20,000,000 of coin (and the first increase of the metallic currency always goes into the banks, and its first outflow is from the banks and not from the circulation), there will almost certainly be an issue of $60,000,000 to $80,000,000 of paper based on the $20,000,000 increase in the coin. That increases the volume, lessens the value of the entire currency (including the metallic part), raises price, and turns the exchanges against us. Then the banks have to pay out coin, and if $20,000,000 of gold goes away, in order to preserve the same relation between paper and coin, they must contract the paper currency sixty or eighty millions. It is the extreme fluctuation in the volume of currency issued in this way (first by increasing and then by decreasing it) that leads to the wide fluctuations in prices which we had under that system.

Mr. EWING. Assuming $800,000,000 to be the distributive share for this country on a metallic basis, you think we must at least have $400,000,000 of that in coin?

Mr. WARNER. I think if left to the operation of the choice of the people to determine what part of the $800,000,000 should be coin and what part paper, that within a period of twelve or eighteen or twenty-four months, at farthest, after resumption began, half, at least, of it would be coin.

Mr. EWING. There will be no resumption of specie payment unless the people be left to that free choice?

Mr. WARNER. Manifestly not. You may, of course, *initiate* resumption at any time, but the maintenance of it will consist in supplying coin to answer all future demands.

The CHAIRMAN. You observe that the Secretary of the Treasury

intimates that Congress ought to pass some law to provide against what he says is a necessary evil of metallic money (that there is no provision by which banks or the government can pay in coin). Has it ever occurred to you that that can be obviated by authorizing the Secretary of the Treasury, in case he resumes, to pay his obligations at the market rate of money, instead of at the mint rate? Have you ever given that subject any attention?

Mr. WARNER. That question was discussed in England during their period of suspension. It was carefully considered by Ricardo, Sir Robert Peel, and others. In fact, resumption in England began on that theory; but, as a means of regulating the quantity of money, which alone determines its value, I have never been able to see how that principle is going to work so as to regulate the volume in such manner as would preserve steadiness of value. As I have already stated, this, undoubtedly, would be true; we can maintain our currency on a level with metallic money by simply limiting it to its present volume; I think there is no question about that; that is a principle which has been always admitted by writers on monetary science, and if that does not constitute as much money as would naturally fall to us in the course of trade, coin would come in to fill up the vacuum—the vacuum being first formed. Such a currency, $650,000,000, say, in paper, and fifty millions in small coinage, and this supplemented by full coins, would vary precisely as a purely metallic currency would vary—precisely as though the whole of it was coin; and its fluctuations would be far less than a convertible currency issued by 2,000 independent banks, which, on the inflow of $20,000,000 of coin into their vaults, would issue, perhaps, $60,000,000 or more of currency, and on the outflow of coin would draw that much of their paper in. But that a purely metallic currency possesses the flexibility which is desirable in a currency I do not admit. There is where that principle seems to have failed in England. It possesses, nevertheless, greater flexibility than the national-banking system as at present constituted; that is, a purely metallic currency has greater flexibility than our present national-bank currency has. And a currency of $800,000,000, of which $650,000,000 is paper and the rest subsidiary coin and full coin, will all vary precisely as a purely metallic currency would. So an inconvertible currency fluctuates as you increase or decrease the quantity, and by that means only; and to say that all variations in the market price of gold, as on Black Friday, marks fluctuations in our currency, is the absurdest nonsense. If that were true, then prices generally would have varied in the same proportion.

The CHAIRMAN. You might then have a paper currency that fluctuates no more than gold or silver, and, in fact, fluctuates less?

Mr. WARNER. Certainly.

Adjourned until to-morrow.

WASHINGTON, D. C., *April* 23, 1878.

Statement of Mr. A. J. Warner continued.

Mr. WARNER. I have made out the percentages of coin and paper, in reply to the question put by the chairman yesterday, as to what additional amount of coin would be required, and what amount of paper must be retired, in order to place the circulation of this country now on the same basis of equilibrium that existed in 1861 and 1857, and the change necessary to make to place us on as good a footing relatively as exists

in countries with which the Secretary makes comparison. Taking our present volume of currency as a normal one, or as a full volume, made up of paper, $650,000,000, and subsidiary coin and fractional currency, $50,000,000, and allowing to the Pacific slope $50,000,000 coin (which is something more than Dr. Linderman's estimate), making a total ot $750,000,000; to restore, then, the state of equilibrium existing in 1861, when we had $1.41 in coin out of a total volume of $487,000,000, to $1 in paper, our circulation should stand to-day $439,000,000 coin and $311,000,000 paper. That would place us on the basis of 1861.

Mr. HARDENBERGH. That was at the time of the suspension of 1861?

Mr. WARNER. Yes. That would put us where we were when suspension took place in 1861. To do that would take, besides the $50,000,000 of subsidiary coin, and besides the $50,000,000 coin set down for the Pacific slope—presuming that amount to be in circulation there now—and the $150,000,000 more which it is proposed to have in the Treasury and the banks by January 1, 1879, making $250,000,000 in all. That is, in addition to this $250,000,000 of coin which it is proposed to have January, 1879, it would require $189,000,000 more coin, and the retirement in all of $349,000,000 of paper, leaving the circulation of $750,000,000 to stand, coin $439,000,000, paper $311,000,000. That would be the state of equilibrium that existed in 1861, when specie payments were suspended. Comparing in the same way with 1857 (another period of suspension), when there was $1.16 of coin in the country to $1 of paper, our volume of $750,000,000, to give us the state of equilibrium existing then, should stand $403,000,000 of coin and $347,000,000 of paper, which would require, in addition to the subsidiary silver, the coin on the Pacific slope and the $150,000,000 of reserve which it is proposed to have January, 1879, $153,000,000 more coin still, and the retirement of $303,000,000 of the paper money now outstanding.

Mr. BELL. Your estimate as to 1861, I understand to be based on the condition of the currency unaffected by the war and by inflation?

Mr. WARNER. Yes, it is based on the currency of 1861 before the suspension of the banks, and before the issue of any legal-tender paper.

Mr. HARDENBERGH. Is not the estimate of 1857 a safer one than that of 1861, because from 1857 to 1861 the country was in a disturbed state awaiting the secession movement, and therefore gold occupied a different relation to the circulation than it had done previously?

Mr. WARNER. I have taken 1857 and 1861 both. If I should take 1859 or 1860, then the amount of coin that would be required now, according to that ratio, would be still greater.

Mr. HARDENBERGH. Do you not think that 1857 is a fairer test of the true condition of the country, aside from the civil war, there having been great financial disturbance from 1857 down to 1861?

Mr. WARNER. Perhaps so. These periods, especially that of 1857, are what may be called periods of depression in the proportion of coin to the whole circulation. But if the political state of the country prior to 1861 had any effect it probably was to increase the proportion of coin to paper in the country.

Mr. HARDENBERGH. But the panic of 1857 affected the financial health of the nation, and the period of the secession movement in 1861 affected its life. So there was no financial peace in the country from 1857 to 1861. During that time capital was beginning to fly away, and people were beginning to contract and withdraw their money in anticipation of the trouble connected with secession. Therefore the period previous to

1857 was a much healthier time, I take it, as to the amount of gold required in the country than the period from 1857 to 1861.

Mr. WARNER. Well, I have given both periods.

Mr. EWING. But really a better comparison would be with the years preceding the panic, because the panic occurred probably in part on account of the fact that there was an excess of paper money as compared with the volume of coin.

Mr. HARDENBERGH. The panic itself grew out of one fact, the failure of the Ohio Life and Trust Company.

Mr. WARNER. Taking the years 1857 and 1861 (years of suspension), we have years of the lowest amount of coin in circulation to compare with now. However, in July, 1861, there was an issue of 50 millions of demand notes for war purposes, before the issue of legal-tender notes.

Mr. EWING. Does that go into the aggregate of paper currency which you have calculated in your total?

Mr. WARNER. No, sir; I have calculated only the bank currency. As an offset for that 50 millions of demand notes, I may say that that amount would be no more than sufficient to provide for the additional use for currency caused by the war. Comparing in the same way our whole circulation with that of other countries, having reference to the Secretary's comparison on pages 32 and 33 of his examination before this committee, where he compares only the reserves, without taking any account at all of the state of the circulation in the different countries, I find this to be the fact: In order to establish the same relations between paper and coin that exists in England, ours should stand (taking the 750 millions as a full circulation), 579 millions coin, 171 millions paper. To establish this relation it would require the procurement of 375 millions more coin than now exists in the country, or than it is proposed there will be in January, 1879, and the retirement of 479 millions of the 650 millions of paper. Comparing with France, to establish here the same state of equilibrium (with a total circulation of 750 millions), our currency should stand, coin 562 millions, paper 185 millions, which would require us to procure 312 millions more coin than we have, or expect to have January next, and the retirement of 465 millions of our paper. Making a comparison in the same manner with Germany, our circulation should stand 600 millions coin to 150 millions paper. To establish this state of the circulation would require us to procure 350 millions more coin than the country possesses, or is expected to have next January, and the retirement of 500 millions of our present paper circulation. That is, to establish the state of equilibrium in this country that now exists in other countries, and that, at former periods, existed in this country, we should have the following proportions of coin and paper in a total volume of $750,000,000:

Proportion of coin to paper in the whole circulation, as it should be, to establish the relation—

	Coin.	Paper.
Existing in England	$3 33	$1
Existing in France	3 10	1
Existing in Germany	4 00	1
Existing in the United States in 1854	1 24	1
Existing in the United States in 1857	1 16	1
Existing in the United States in 1861	1 41	1
Proposed to have in 1879, when resumption takes place	40	1

Table showing how a circulation of $750,000,000 would stand with the same proportion of coin to paper that existed at different periods before the change in the system of currency in the United States, and also how the circulation would stand if on an equal footing with other countries as to the proportions of coin and paper; also the amount of additional coin yet required to establish such relations, and the paper to be retired.

	Coin.	Paper.	Coin required more than is in the country, or it is expected there will be January, 1879.	Paper to be retired.
To have the same proportion as in England we should have in $750,000,000	$579, 000, 000	$171, 000, 000	$329, 000, 000	$179, 000, 000
To stand on the same footing as France we should have..................................	562, 000, 000	185, 000, 000	312, 000, 000	[illegible]5, 000, 000
To stand on the same footing as Germany we should have	500, 000, 000	150, 000, 000	350, 000, 000	500, 000, 000
To re-establish the condition existing in 1861 we should have	439, 000, 000	311, 000, 000	189, 000, 000	319, 000, 000
To establish the condition of 1857	403, 000, 000	347, 000, 000	153, 000, 000	303, 000, 000
To establish the condition existing in 1854 ..	415, 000, 000	335, 000, 000	165, 000, 000	315, 000, 000

On the other hand, on the supposition that the 650 millions of paper is to be maintained, either by the force of its legal-tender quality, or because of the preference of the people to have the whole 650 millions in paper rather than in coin, which is not at all likely, then with the 50 millions of subsidiary coin, and the 50 millions for the Pacific States, we have already, in these amounts, the full volume of 750 million dollars; and on the supposition that this volume, with bi-metallism for the world, would be our full proportion, then there is no room in our circulation for coin, and if added to the paper it would not remain in the country, and its accumulation in the Treasury for the purpose of resumption, by the sale of bonds or otherwise, is only a disturbance of the money market of the world, and one that affects injuriously not only the United States, but, more or less, other countries also.

The CHAIRMAN. Why does it not leave the country now?

Mr. WARNER. It is under lock and key.

The CHAIRMAN. Not all of it.

Mr. WARNER. That which is in the banks is not; and one reason why that does not leave the country now is that banks are holding it in view of resumption. Again, if 750 millions does not make up our full circulation, and some small amount additional is required, it would exist in the form of bank reserves. Besides, a given amount of coin, under any circumstances, and with gold at any premium, would stay in the country, being required for international commerce, and that sum is augmented by a given amount required to pay duties on imports. I believe, even when the premium on gold was highest, there was never less than eighteen or twenty millions of gold in the country; but this does not go into circulation.

The CHAIRMAN. That is the idea; that while we have apparently a certain sum of money in circulation, yet it is not in fact in circulation, but is in the banks and the Treasury, and that it is really as if it were dead and not in existence.

Mr. WARNER. Yes; the same as though it were still in the mines, so far as pertains to our circulation; and so when gold and silver is taken from the mines, all but a small part of it (say our natural share) leaves the country. Just so, and under the same laws, and for the same reason precisely, when the door of the Treasury is open the coin that is there will leave us if paid out in excess of our natural circulation and paper is not retired. There will be no difference then whatever between

gold and silver dug from the mines and gold and silver let out of the Treasury.

The CHAIRMAN. You do not estimate at all the probable favorable condition of our trade abroad. You do not take that into your estimate.

Mr. WARNER. Yes, I take that into account in estimating our probable volume of money. It is that favorable balance which allows us so large a volume. If the balance of trade turns against us, then some part of our volume of money, if convertible into coin, will flow away until the state of equilibrium is established.

Remarking further on the balance of trade and on its influence, I will say, first, as has been frequently said, nothing is more misleading than figures showing the extent of a balance of trade. As an illustration: a silk merchant of Lyons ships to this country $20,000 worth of silks. They are entered as worth $20,000 in the New York custom-house. He sells the silks in New York for $25,000, and invests the whole sum in flour, with which he loads his vessel back to Lyons. The custom-house books would show $20,000 of imports and $25,000 of exports, but when you ask France for the difference, she will, of course, say she does not owe you anything. If you find the merchant who made the importation and the exportation, he will tell you that he paid for the flour and owes nothing, and that the difference is his profit. Therefore, just what amount of money comes to us in the balance of trade is very difficult to calculate, but certainly no such sum as 160 millions. Besides, there is the large amount paid out in the carrying trade and for insurance every year and by travelers going abroad, which never enters the custom-house returns. Again, a balance of trade never sets constantly toward one country. If it did, such country would eventually have all the money, and some other country the goods. The longer, therefore, that the balance of trade sets in favor of any given country, the more certain it is that it will grow less, and the more probable is it that it will change, for the reason that the exportation of the precious metals from the countries importing goods lessens the quantity of the precious metals in such countries and, of course, depresses prices there and prevents further exportation of the metals.

Mr. EWING. An increase of prices in the country to which the coin goes?

Mr. WARNER. Yes; lowering prices on the one side and raising them on the other.

Mr. HARDENBERGH: Under this examination that you have made connected with the amount of coin now and in 1861, when can you ever look forward, by your theory, to resumption of specie payments in this country, without an immense and terrible contraction of the currency which would shake everything from center to circumference?

Mr. WARNER. I do not think it possible without doing that. I give it as the result of my own examination that the only possible way to maintain specie payment is to supply coin and retire paper till the quantity is reduced to a sum not exceeding 50 per cent. of the entire circulation. What that yet involves can be better imagined than described.

Mr. BELL. I understand you to mean by resumption a redemption of the paper circulation and its withdrawal from circulation, as was done in Great Britain.

Mr. WARNER. That is the only way, in my judgment, that resumption can possibly be maintained; that is, to make it properly resumption. Let paper be reduced down as far as it will reduce itself, and substitute coin for it, and my own judgment, I repeat, is, that the paper

will not stand, after a year or two, at more than 50 per cent. of the whole circulation. It is opposed to all previous experience in this country, and the experience of other countries, to calculate otherwise; and I cannot see that anything has arisen to change greatly the laws of currency or the preferences of the people. Monetary science is the same now that it was fifteen years ago. Hence I think the country is being drawn into a vortex by this resumption process that ought to be avoided, and the country spared the loss and agony it must entail.

Mr. EWING. Comparing the situation now with 1857, what reason is there to suppose that it is possible to maintain resumption without even a larger proportion of coin than we had in 1856? The banks broke down in 1857 for want of coin. What reason is there to suppose that we can now maintain specie payments?

Mr. WARNER. The only reason I can assign is this: the character of the currency now existing being uniform, and the greenback part being legal-tender, the confidence of the public in the currency will be better sustained; although, as I said yesterday, when a currency is actually and conveniently convertible, there is no force (or almost none) to the legal-tender quality. But the very moment that confidence fails, or begins to fail, in the convertibility of the currency, then the legal-tender quality comes in just at that point to sustain it. It would sustain confidence when any person having bank-notes, which, although convertible to-day, might be open to suspicion that they would not be convertible to-morrow, but if that person is sure that, even if convertibility fails, the money power at the same nominal value will continue, he will be less likely to present his notes at the bank, and I think, therefore, we may reasonably count on a somewhat larger proportion of paper than existed under the old system. On the other hand, however, there is this to be considered: in the years with which comparison has been made (1857 and 1861; or, for that matter, generally under the old system of a specie basis) it is hardly correct to say that we had a convertible currency in the United States. In large parts of the country the currency was not really convertible, but to a large extent in many States even when nominally convertible, was practically an enforced circulation. Public sentiment was against those who demanded coin. I remember that was the case in 1857; and in some places that spirit was carried to extremes. Mr. Theophilus Fisk, for instance, of Charleston, describing the condition of the currency existing there before the panic of 1837, says they determined not to suspend specie payment, but at a public meeting, at which the mayor presided, it was proposed that it should be made death (!) for any man to demand coin!

A paper that is convertible with difficulty, or against public sentiment, is in some degree to be treated rather as an enforced currency. Then, again, Bank of England notes are legal tender, and we have shown what proportion of the whole circulation of England is coin. On the other hand, it is to be considered (and it is important) that no notes are issued by the Bank of England under five pounds. If small notes were issued, undoubtedly there would be a larger proportion of the whole circulation in paper than there is now.

Mr. EWING. If you take the situation in 1857, when there was an excess of the volume of paper as compared with coin (so large a volume that in many parts of the country there was no actual resumption), and when you had the whole power of the banks exerted to keep out the paper, every bank dealing to a large extent with its own paper, and in its own community, to keep it in circulation, is there good reason to think that

we can get along now with a less proportion of coin supply than we had then?

Mr. WARNER. After resumption banks will have no interest in keeping any but their own paper in circulation. They will have the same interest, I think, in keeping out their own paper that they had then in keeping their paper out. But, on the other hand, the banks are manifestly, under the present resumption act, largely relieved from the obligation of providing themselves with coin, except through the instrumentality of legal-tender notes.

Mr. HARDENBERGH. In 1857, the circulation of the banks throughout the country was not all secured, and there was a great difference of feeling as to the different notes. Is it not probable that the gold which we had then would have sustained the demand that would have been made by the people if, instead of State bank issues which we then had and of which the people were afraid, we had had greenback circulation and national-bank notes?

Mr. WARNER. That is, as I understand you, the same as if you ask me this question: "Suppose the same equilibrium in currency should exist now that existed then, could it not be maintained?" Well, in my judgment it could be, and yet in New York circulation was well secured at that time; and it should be remembered that more than half of the whole volume then was coin.

Mr. HARDENBERGH. I have been the cashier of a bank for twenty years. In 1857, every one wanted specie, and did not want bank notes. But in 1861, and in 1867, and in 1873, when they wanted money, they did not care about the gold, but what they wanted was either greenbacks or national-bank notes, and the volume of gold required was not one-tenth of the part necessary to meet the demand. People did not care for it so long as they had confidence in the government. What they wanted was either national-bank notes or greenbacks.

Mr. WARNER. As you say, with a greenback currency, I do not think there would be a run for gold coin even in a panic. In making allowance for the difference in the quality of the paper, I have already given it as my opinion that with the same proportion of coin to paper existing in 1857, specie payment, under favorable circumstances of trade, could very well be maintained; indeed, very probably with a less amount; probably with 1 to 1 in the whole country. But we must not lose sight, however, of a foreign demand for our coin that may at any time spring up.

The CHAIRMAN. Recollect that there is a marked difference in the condition of the country then and now. We had no public debt of any consequence in 1857. A small debt that we had at the beginning of the war accumulated subsequent to that period. We have now a very heavy public debt. In addition to that, we have now a large private indebtedness abroad, as well as indebtedness of States and railroads. It seems to me that that is an element which you have not regarded at all.

Mr. WARNER. Not as yet, although I have had it in view and have made some figures on the subject. I regard it as a very potent element, and one that is likely to exert a powerful influence, and very possibly at times when otherwise we would be in a state of equilibrium. The difference between a debt at home and a debt held abroad in its influence on the currency of a country is very great. I often think of the remark of Disraeli, that "a debt at home is like an irritating flea-bite, but a debt abroad is an open, bleeding wound." The influence of a debt abroad on the currency of a country owing the debt is very great. It may be illustrated in this way: Suppose our exports to be six hun-

dred millions, and suppose, also, that we owe one hundred millions in gold as interest, which is drawn away annually, then our distributive share of the world's money would be no more, with the six hundred million exports and one hundred millions of debt to pay abroad, than it would be if, without the debt, we exported but five hundred millions. The difference, moreover, between paying a debt abroad out of the circulation or the currency of a country and paying it with commodities has not, I think, been generally taken sufficiently into account. Indeed, most writers on economical science seem to assume that it is the same thing whether a debt abroad is paid in coin or whether it is paid in commodities, and that when coin is exported it is really as a commodity. But I conceive the difference to be very great. Bullion, or the product of mines that has never formed part of the currency, if exported, would be the same, of course, as any other commodity, and would have no effect on the circulation of the country different from the exportation of the same amount of other commodities. But when a country exports a part of its currency it is taking away that which is the measure of the value of other things. Suppose, for instance, the total wealth (taking convenient figures) of the United States now to be thir y thousand millions, and suppose the currency circulating that amount of wealth to be six hundred millions; now, this thirty thousand millions of wealth stands as thirty thousand millions because it is measured by six hundred millions of currency. That is the relation that exists between the money and the commodities—so much currency, so much wealth, the thing measured and the measure. Now, if you export a hundred millions out of the thirty thousand millions of commodities there would be still left in the country twenty-nine thousand nine hundred millions of wealth, of commodities. The change is less than four-tenths of one per cent. Moreover, the one hundred millions of commodities sold could be replaced in a few weeks, or months, at most, by the production of new commodities. But if you take away one hundred millions of the currency of the country, then you have taken away nearly 17 per cent. of it. The total wealth which was thirty thousand millions becomes 17 per cent. less, or only twenty-five thousand millions. Besides, you cannot restore the one hundred millions of currency at will by new production. You must acquire it in your trade with the rest of the world. You, therefore, change the relations of money to debt and commodities. You change the value of all commodities when you export a part of your currency. You change the relation between money, debt, and property; that is, between money and the other wealth of the country. And not only that, but if you take one hundred millions from your currency you affect the whole structure of credit based upon it. That is shaken to its foundation, perhaps overthrown, and the disturbance is increased tenfold, which is enough to ruin half the producers in the country or bankrupt half the ordinary dealers in any market. Hence I conceive the question of debt abroad as having an important bearing on the whole problem of resumption. Specie payment that would be safe and reasonably certain without a debt abroad may become very unsafe and uncertain with such a debt—with the power in the hands of creditors abroad to draw away the very coin needed for the maintenance of resumption.

Mr. HARDENBERGH. Coin is the nation's wealth, while currency is its debt, and therefore they differ very greatly.

Mr. WARNER. In reply to that I beg to say this: whether the six hundred millions of currency be derived from the precious metals, or consists of paper, if it be reduced from $600,000,000 to $500,000,000 the

effect on the value of the commodities which constituted the wealth of the country would be the same, and the effect on production and business the same. And, if permitted, I would say further on that point, because as a principle of currency it is important in its bearing on questions now at issue, that the value (call it a debt, if you please, but the value, nevertheless) of our paper currency rests upon precisely the same principle as that on which the value of metallic money rests. From 70 to 80 per cent., it is estimated, of the value of gold is due solely to its use as money, and but from 20 to 30 per cent. to its use in the arts and as ornaments. Seventy per cent. likewise of the value of silver is due solely to its use as money and about 30 per cent. of it to its use in the arts. Now, when a government issues an inconvertible paper, and it goes into use as money, having the same power and performing the same functions as other money, then its value rests upon the same principle, namely, its use as money; but not merely 80 per cent. of its value, but its entire value, we may say, is due to its use as money. This principle was stated by John Locke two hundred years ago. It is not new, although it does not seem to be commonly understood. The value of inconvertible paper money, like the value of any other money, depends wholly upon quantity as compared to use. On this theory only is it safe to treat the currency of a country.

I was going to remark, however, before this divergence, in reference to our debt held abroad, that estimates which I find differ very widely and are very unsatisfactory. The estimates which have already been given before this committee, derived from information on this side of the Atlantic, differ very widely, I find, from estimates on the other side.

Mr. EWING. One estimate made up from this side and given to the committee was that our debt held abroad amounted to two thousand million dollars. That is Mr. Pullan's estimate.

Mr. WARNER. The data and information on which all these estimates are made, so far as I am able to get them, are very meager, but I have myself given more credence to those made from the other side as being made from more certain data than those made on this side. Ernest Seyd has given in different forms an estimate of the debts of this country held in Europe in 1876. He gives national and State indebtedness of the United States, held in Europe, as $1,200,000,000; railroad and other corporate indebtedness, $750,000,000; other loans, $300,000,000; making a total of $2,250,000,000, calculated at $5 to the pound sterling.

Mr. EWING. Where do you find that?

Mr. WARNER. In Seyd's Fall in the Price of Silver. He divides it in another place as follows: Taking the full sum of £250,000,000, or $2,250,000,000. Foreign holding in loans and mortgages, £20,000,000 = $100,000,000; railways and public debentures, shares, &c., £150,000,000 = $750,000,000; national, State, and municipal, £200,000,000 = $1,050,000,000; miscellaneous (or what he calls international capital, such as current balances, temporary, loans, &c.), £40,000,000 = $200,000,000. Then he includes in the indebtedness here (what probably is also embraced in his first estimate) what he assumes as the amount of coin we must buy yet from Europe in order to be able to resume specie payment. He designates certain states in Europe that own debts of other states, besides holding their own debts, as creditor nations and assigns them sums as follows: England, from £800,000,000 to £1,000,000,000 of the debts of countries other than her own; Germany holds from £450,000,000 to £500,000,000; France, from £400,000,000 to £500,000,000; Holland, Belgium, and Switzerland hold from £100,000,000 to £125,000,000. This would give in dollars to England from $4,000,000,000 to $4,800,-

000,000; Germany, from $2,000,000,000 to $2,500,000,000; France, from $2,000,000,000 to $2,250,000,000; Holland, Belgium, and Switzerland, from $500,000,000 to $600,000,000.

Mr. R. Dudley Baxter, an eminent authority on public debts, accepts Mr. David A. Wells's estimate of the amount of interest due on the bonds held abroad in 1870, which does not include, I suppose, other debts, namely, $85,000,000. This does not differ very widely from the estimate of Seyd, and is below rather than over. Dr. Edward Young, chief of the Bureau of Statistics, makes the total of our indebtedness held abroad at thirteen hundred and fifty millions. I doubt not that some part of the indebtedness held abroad a few years ago has been returned, and some part of the corporate indebtedness lessened through the insolvency of the corporations. I presume it is a hundred millions less now than it was in 1876.

Mr. EWING. Have you any other estimate?

Mr. WARNER. Nothing that is sufficiently definite. Mr. Leone Levi and others give some estimates, but in round numbers not differing widely from the others, and probably drawn from the same sources.

Mr. EWING. Is there an instance of a debtor nation maintaining specie payments?

Mr. WARNER. I know of none. All those countries in Europe that have large debts, which are held by four or five principal creditor nations, are using inconvertible currency for the larger part of their circulation. The precious metals seem to stay with the holders of these debts.

The CHAIRMAN. I believe it is true also that in Italy, as well as Austria, what is called the balance of trade is very largely in favor of both of those states, and that they use inconvertible paper.

Mr. WARNER. Yes, sir; and if we owe a hundred million dollars abroad as interest, we must, in order to maintain stability in a currency derived from the precious metals, have an actual balance of trade in our favor of a hundred millions every year, and if we fail in that, then some part of the currency will be drawn away.

The CHAIRMAN. Is not this a debt on demand practically of both principal and interest? That is, they may send into the market here those bonds and sell them for whatever they are worth, to be paid in gold or products?

Mr. WARNER. That, of course, may be done. But if they send them very rapidly, the bonds would doubtless fall in price and in that way the sale be checked. It is a demand debt, so far as interest is concerned, and of course the creditor will demand coin unless we have something else to offer him which he prefers to coin, or, in other words, keep a balance of trade in our favor.

Mr. EAMES. What proportion of the two thousand millions of indebtedness held abroad—national, State, and municipal—is matured?

Mr. WARNER. I think very little of it is matured.

Mr. EAMES. Then all that the government at present has to do is to provide the interest?

Mr. WARNER. The interest is all that is required of the government now, I think.

Mr. EWING. Why should not more be considered? Suppose we had positive assurance that the balance of trade would be in our favor equal to the amount of interest on our debt held abroad, could we, with any safety, resume specie payment? Is it not a fact that our whole supply of gold is practically held then at the will of our foreign creditors, who

may send our bonds here and sell them if they please for gold, and drain our gold from us?

Mr. WARNER. They certainly have a very strong lever. They have a strong hold upon any part of the precious metals we may have. Not only their interest must be paid, but, of course, they can send their bonds here to be sold, and can allow them to be sold down until they would drain very largely our coin.

Mr. EWING. If there should be an exigency in Europe, arising from war or from any other cause, requiring a drain of one hundred millions of gold from this country, and making it desirable for them to get the gold from this country, is it not perfectly certain that they could get it irrespective of the question of the maturity of those bonds, and irrespective of our demand, however exigent it may be, for the use of the coin here as our currency?

Mr. WARNER. I think it would be a question of bargain between the holders of coin here and the holders of the bonds. If the holders of the bonds offered them at a price low enough to induce those having the coin here to part with the coin, it could be certainly drained away. It is a question of business, the same as it would be if they should send anything else here.

Mr. EWING. Is not this the fact which makes it impossible for a debtor nation to maintain specie payment irrespective of the balance of trade?

Mr. WARNER. The annual demand for interest, together with that, makes it so. The annual demand for interest is in itself very exhausting, and then comes the fact that debts may be sent home, and the fact that those having gold are always ready to part with it for bonds if the bonds are offered a little down. That would undoubtedly have a very powerful influence in determining the movement of gold.

Mr. BELL. Are you advised as to the rate of interest which this debt abroad carries—I mean the average rate of interest of our entire indebtedness?

Mr. WARNER. I have no figures on that point with me. But until the funding operation began the rate of interest was generally 6 per cent. for national, and 6 to 7 on municipal indebtedness. For corporate indebtedness, mortgages on lands, and public works, &c., the rate would run somewhat higher. I think that 6 per cent. would be as low as the whole would now average.

Mr. HARDENBERGH. You mean taking national, State, municipal, and every other debt held abroad?

Mr. WARNER. Yes, sir; I think the interest on the whole would not run less than 6 per cent. On loans made on landed security, they are often at higher rates—from 8 to 10 per cent. Railway bonds usually bear interest at 7 per cent., oftener over that than below it, and municipal indebtment seldom bears interest below 6 per cent. A part of the national debt comes below 6 per cent., but the average, I should say, would be rather above 6 per cent. than below it.

Mr. EWING. Do you think it practicable to get this sum in gold or coin which you regard as necessary in order to maintain specie payments?

Mr. WARNER. If it is possible to obtain it at all it will be at a very high price as compared with what we have to buy it with. We can buy easily enough one hundred millions of commodities from England or France or Germany. We could buy, probably, several hundred millions of commodities from either country, with bonds, at the market rate of such commodities as they stand now. But for the reason that I have

given, that when you attack the currency of a country, drawing away a part of its circulation, you are changing the relations between that which measures value and other things. I do not suppose we could actually buy one hundred millions of England's coin and get the gold to bring away for five times one hundred millions in bonds. Indeed, to abstract from the circulation of England one hundred millions of her gold, would overturn all the established relations between money, debt, and property, and would involve the country in general bankruptcy. You may draw from a country a given part of its hoards or of its reserves, but the moment you go beyond and touch its circulation, then you begin immediately to affect prices, and immediately the pressure is put upon it, and, if the outflow of coin is not stopped, panics will be sure to follow. It is easy enough for a country to sell its coin, that is, to change its currency into capital. That is easy enough, I say; but when you come to convert capital back into currency, that is a very different thing.

Mr. Hardenbergh. Have we not this advantage over England, that she cannot do without our food, but we can do without her reserves?

Mr. Warner. That is an advantage which we have undoubtedly in the maintenance of the balance of trade, but one that scarcely balances England's advantage as the holder of millions of our debt. But I was going on to illustrate the difference between converting a metallic currency into other capital, that is, selling it for commodities and drawing currency from other countries by selling commodities. On that point I hardly think that any one would be risking much by advancing the opinion, that if we had on hand to-day in this country, now, all the material, all the commodities that we bought with the two hundred and eighty-five millions of gold which was displaced and sent abroad in 1862–'63, I doubt very much whether we could buy back with it all \$85,000,000 of the money of Europe, or even \$50,000,000, and actually get the coin to bring away. Hence, a country that first turns currency into capital or material, and then capital back into currency, makes bad bargains.

Mr. Ewing. Have we ever in any year added to our stock of precious metals by importation?

Mr. Warner. No, sir; I think not—not very lately; not since we became producers of the precious metals.

Mr. Ewing. Our bonds and securities of all kinds that have been sold abroad have not brought us gold or silver?

Mr. Warner. No, sir; they brought us commodities.

Mr. Ewing. And the balance of trade in the precious metals has been against us every year, has it not?

Mr. Warner. Yes, sir, steadily so, I believe; that is, we export more of the precious metals than we import.

Mr. Bell. Am I to understand, that in the sale of this vast amount of United States securities abroad we have actually realized no coin?

Mr. Warner. Not any coin at all. The sale of our bonds abroad brought us commodities, but not coin.

Mr. Eames. If the Government of the United States should meet promptly and at maturity all of its legal obligations for the public debt will any considerable amount of those bonds now unmatured be returned here for sale?

Mr. Warner. I do not think they would be in ordinary conditions of trade; but in such an exigency as a great foreign war, or the balance of trade turning heavily against a country holding our debt, as, for instance, in the years 1818, 1838, and 1847, the year of the Irish famine,

then I should say the bonds would come here rapidly. But in ordinary, states of trade they would not.

Mr. PHILLIPS. Have not our bonds to the amount of a hundred millions and more come back here since last September?

Mr. WARNER. It is reported, I believe, that over seventy-five millions of them have come back, and that, I think, was largely due to the expectancy of war and to the troubled state of Europe, but partly, perhaps, to the silver agitation.

Mr. EAMES. Do you think that the return of our bonds from abroad was affected by action of the House in repealing the time named for resuming specie payment by this government?

Mr. WARNER. I do not think that any action about resumption affected the question at all. Holders of bonds can have no direct interest in the resumption of specie payments. That cannot add to our ability to pay the bonds, or make them more secure. But it is very probable that the passage of the silver bill affected the movement somewhat at first. However, I am inclined to think that even the effect of that has been much overrated; and in this connection permit me to say I discredit entirely the assumption that it was by funding our public debt into gold bonds that we have been able to reduce the rate of interest. Rate of interest does not depend upon the kind of money. Rate of interest is always as low in silver to be repaid in silver as in gold to be repaid in gold. The Secretary at any time could have sold "coin" bonds, taking pay in silver or gold, at the option of the purchaser, and with the coin so obtained taken up 6 per cent. coin bonds and saved as much interest as has been saved.

Mr. EWING. There were two quite notable instances in our dealings with England illustrating the reluctance of the Bank of England to part with any of its gold. Mr. Boutwell stated in the Senate that during his administration of the Treasury Department he sold twenty-one millions of bonds for gold, and that he was notified by the Bank of England, or by the British Government, that the gold could not be withdrawn and that he must take other American securities, and he did so. Again, in the case of the Geneva award of fifteen millions five hundred thousand dollars, which was payable to us in gold, the British Government in effect declined to pay it in gold and paid it in other securities.

Mr. WARNER. That illustrates the difficulty of abstracting a part of the currency of a country.

Mr. HARDENBERGH. Where is the Secretary to get his fifty millions additional of gold?

Mr. EWING. If he gets it at all he will get it from this country. [To Mr. Warner.] You have stated that, in your opinion, when the people are left to their free choice of taking paper or coin, we will certainly be compelled to have as much coin in the country as paper?

Mr. WARNER. Yes, sir.

Mr. EWING. And that we cannot expect to keep out more than one-half of the aggregate of the currency in paper money?

Mr. WARNER. Yes, sir; that is my opinion.

Mr. EWING. Now, what proportion of the aggregate amount of coin in the country (judging from past experience here and from the experience of other nations) would it be practicable for the redeeming agency (whether Treasury or banks) to retain as a redemption fund?

Mr. WARNER. The proportion of the whole coin of the country which may be held as reserve by banks and the Treasury will, undoubtedly, vary very greatly, not only from year to year, but will vary with the

seasons. It will be more at certain seasons than at others. I do not know of any data that would enable any one to form an intelligent opinion as to what it will be in any given month.

Mr. EWING. In 1861 we had two hundred and eighty-five millions of coin in the country, and eighty-seven millions of it was in the banks; how much had we in 1857?

Mr. WARNER. In 1857 we had one hundred and ninety millions in circulation and fifty-eight millions in reserves.

Mr. EWING. That is, between one-third and one-fourth of the coin of the country has been held at those periods by the redeeming agencies?

Mr. WARNER. Yes, sir; the amount has oscillated between those figures, but many banks, under the old system, would not have half that.

Mr. EWING. Would that not seem to indicate that it is not practicable for a redeeming agency (whether the government or the banks) to command more than one-third or one-fourth of the coin in the country?

Mr. WARNER. I do not think that they will command more than that percentage, and I think the rest of the coin will remain out. It will go into private hoards, and to the various uses for which coin is preferred to paper.

Mr. EAMES. What was the paper circulation in 1857?

Mr. WARNER. Two hundred and fourteen millions.

Mr. EAMES. What was it in 1861?

Mr. WARNER. Two hundred and two millions.

Mr. EWING. Is not about that same proportion maintained in France, in England, and in Germany by the redeeming agencies?

Mr. WARNER. A larger proportion is generally maintained there than we have maintained.

Mr. EWING. Speaking of the effect of the withdrawal of one hundred millions of our coin—when it becomes actually paid out in the current money of the people, will not that withdrawal (whenever it occurs) come from the redeeming agency?

Mr. WARNER. Yes; that would undoubtedly be first taken from the reserves.

Mr. EWING. Heretofore, and doubtless hereafter, the reserve of coin has borne, and will bear, a proportion of only one-third or one-fourth of the amount of paper outstanding to be redeemed.

Mr. WARNER. Yes, sir; probably not more.

Mr. EWING. If you withdraw say twenty-five millions of coin from the redeeming agency for shipment abroad, does not that necessitate a contraction of seventy-five millions of paper?

Mr. WARNER. In order to maintain safe proportions, it involves that contraction always.

Mr. EWING. So that the effect of the shipment of twenty-five millions of coin when we get back to resumption, will be a contraction of seventy-five millions of paper money?

Mr. WARNER. Yes, sir; and an inflow of twenty-five millions of coin, which would go first into the vaults of banks, would probably result in the extension of the paper circulation by seventy-five millions. There will be these fluctuations. And to withdraw fifty millions even of currency from a volume of seven hundred millions, would undoubtedly be sufficient, at any time, to involve the country in very serious trouble, overthrow credit, and bankrupt a very large percentage of the ordinary dealers in any market.

Mr. EWING. Speaking of the hoards of currency. When we get back to specie payment, will not these hoards naturally and almost certainly

be hoards of gold—of the metal which, by common consent, is the currency that is the best?

Mr. WARNER. I should say that there can be very little room to doubt that, as long as gold can be had for paper.

Mr. HARDENBERGH. Would it continue for any length of time?

Mr. WARNER. It would continue just as long as hoards continue. Hoards are about so much; they vary, of course. One man may not keep a hoard for a long time, but about so much will be kept in that state.

Mr. HARDENBERGH. Contingent on the prosperity of the country?

Mr. WARNER. Contingent both on the prosperity of the country and on the prosperity of the individual. But usually times of adversity are times of the greatest hoarding.

Mr. EWING. On whom will the burden of making this large coin preparation for resumption fall?

Mr. WARNER. It will fall almost wholly on the Treasury. While the national banks will undoubtedly take care of themselves, yet nothing is plainer than that they will do so through the instrumentality of greenbacks, and if greenbacks are reissued, that instrumentality is made continuous to them. In other words, if the national banks now have what would be deemed safe reserves in greenbacks, I do not see that they need concern themselves at all about gold; and after resumption, if the banks wish to convert their reserves into coin, they can do so, and to the extent that their customers will want coin they undoubtedly will do so.

Mr. EAMES. The reserves and legal-tenders now held by national banks in the cities amount to 25 per cent., and in the country banks to 15 per cent. Do I understand you to say that, in your judgment, that reserve which may be converted immediately through the government into coin, is sufficient to enable the national banks to meet the presentation of any national-bank notes that may be presented for redemption after the 1st of January next?

Mr. WARNER. That reserve would be sufficient, I should say, for any probable presentation of notes; but the reserve would have to be kept up by constant additions, or by new supplies of coin, as the people draw it away for their own purposes; and as there are more greenbacks in the country than national-bank notes, of course the greenback currency furnishes an ample fund to float the national-bank notes. I cannot see, therefore, that there is any obligation imposed upon the banks which the greenback does not at once afford them the instrumentality of accomplishing.

Mr. PHILLIPS. Would not the natural tendency of resumption be this: that the government would concentrate in New York all the gold needed to meet the legal-tender notes, and that the national banks would hoard all the legal-tender notes to offset the gold, being two reserves, and thus causing contraction of the currency.

Mr. WARNER. I think the result would be a contraction and a continuous contraction. Besides, you cannot substitute a dearer currency for a cheaper one even without involving, during the whole course of such a change, contraction to a greater or less extent, because there is always a considerable time intervening between the collection of the paper and its presentation, and the return of the coin to the same locality. That, in itself, must involve a prolonged contraction, which will not be over until the state of equilibrium between the two parts of the currency is fully established.

Mr. PHILLIPS. Our conditions would change on resumption from what

they are now, and all the gold would be held by the Treasury to meet the presentation of legal-tender notes, and the legal-tender notes would be held in the banks to meet the presentation of national-bank notes; would not that be the tendency?

Mr. WARNER. That probably will be the tendency. I should hardly apprehend, however, any very sudden demand for legal-tender notes in exchange for national-bank notes by the people. The demand for greenbacks will be mostly for the purpose of using greenbacks to get coin, and that is a demand that will continue; but I should hardly expect it to be very sudden.

Mr. PHILLIPS. If the national banks intend to maintain a safe basis, would they not accumulate legal-tender notes?

Mr. WARNER. I think so. That will be their policy. They will increase the accumulation of legal-tender notes for the purpose of procuring coin, and that, of course, will work temporary contraction.

Mr. HARDENBERGH. After the 1st of January, 1879, when the first resumption of specie payment occurs, would not the banks suffer immediately by the demand made upon them for gold by their depositors, and also by the demand for gold on their bank-notes?

Mr. WARNER. If their deposits were really payable in gold, I should say that that would be the case.

Mr. HARDENBERGH. Are they not all so payable?

Mr. WARNER. They are payable in legal-tender notes, and so will the banks' own notes be. I have not supposed that the deposits would lead to such an immediate drain of coin from the banks as some have anticipated. If the deposits in banks do not bear an unsafe relation to circulation—that is, when the circulation is ample for the deposits, and when the convertibility of that circulation is provided for, then I take it that the deposits are taken care of. It turns upon the question whether your circulation is sufficient to meet the demands from deposits—that is, whether it bears a proper proportion to the deposits or not.

Mr. HARTZELL. Secretary Sherman, when he was before this committee, told us that he was making provision to secure sufficient coin to enable him to redeem the outstanding government notes that would be presented after the first of January, and that then, in his opinion, resumption would be consummated. Now, if resumption of specie payment in January, 1879, should prove disastrous to the national banks, have they not got the power to combine and soon to abstract all the coin in the Treasury, and force an abandonment of resumption?

Mr. WARNER. There is no doubt but that the banks have the *power* by combining to draw the coin from the Treasury.

Mr. HARTZELL. If it should become a question of self-preservation with the banks, would they not be very likely to do so?

Mr. WARNER. They can always be relied upon to protect themselves first.

Mr. HARTZELL. Then, would not the ability of the government to maintain specie payment after the 1st of January, 1879, depend entirely upon the co-operation of the national banks?

Mr. WARNER. Without the co-operation of the banks, resumption would fail quicker, but I do not think myself that the banks and the government together have the power, by any co-operation, to maintain specie payment without retiring part of the paper. No country can have *all* its currency in *convertible* paper, because when the choice is extended to all the people of the United States in the course of their trade (a choice to be exercised continually in all transactions) to determine what currency they prefer, some part of the whole certainly would

be coin, and most probably the larger part. In that connection I would add this: If there is a hundred millions of coin now in the country, over and above the fifty millions of subsidiary coin and the coin in circulation on the Pacific slope, then, for the Secretary to gather up fifty millions of that and put it in the vaults of the Treasury, no more helps resumption than a man enriches himself by taking money from one pocket and putting it into another. You are increasing the bonded debt, but how in any possible way the maintenance of resumption, or its final accomplishment, is aided by that process I am unable to see. It makes no difference whatever whether there are one hundred millions in the Treasury and fifty millions in the vaults of the banks to start with, or whether the whole hundred and fifty millions of coin is in the Treasury and nothing in the vaults of the banks. The banks furnishing the coin to the Treasury to lie there through the summer months drawing interest, will keep larger reserves in greenbacks, and, after January next, present greenbacks and draw their coin. But how such a loan can possibly aid resumption I am unable to see. If the coin comes from abroad of course that is another thing.

Mr. Hartzell. Without the aid of the national banks, the Secretary's attempt at resumption would be utterly futile, would it not?

Mr. Warner. Yes. If the banks should operate against him, his efforts would fail quicker than with their co-operation. But I take the position that it is absolutely impossible to maintain six hundred and fifty millions of convertible paper in circulation in the United States by any co-operation of the banks and the Treasury.

Mr. Hartzell. The Secretary says that he has nothing to do with the banks, and that they must take care of themselves.

Mr. Warner. They will undoubtedly take care of themselves; but he furnishes the instrumentality.

The Chairman. The Secretary will have twenty-five millions of silver in the Treasury at that time. If he offers it to the banks, they will not want to take it for their legal-tender notes. Will he not be able to keep up this balance by the use of silver, and will it not be his duty to do so as being a cheaper metal?

Mr. Warner. Only for a short time, I take it. If there are twenty-five millions of silver, and if back of that is the gold, it would be very easy for the banks to combine and distribute that amount of silver, and then reach the gold that is behind it. Moreover, twenty-five millions of silver would be taken up by the country in pocket pieces.

Mr. Ewing. It would be taken up because silver certificates can be used to pay customs.

Mr. Warner. Yes, sir; for that reason also.

Mr. Ewing. The Comptroller of the Currency states the amount of deposits in the national, State, savings, and other banks, at twenty-two hundred and twenty millions. Add to that amount the currency, six hundred and fifty millions, making twenty-two hundred and seventy millions of coin demand. Must not the Treasury Department respond in the end to the whole of that demand for gold and silver, if the holders prefer gold and silver to paper?

Mr. Warner. Yes, to the extent that they do so; but I think that is all covered in this. Our circulation, when made convertible, will be just so much coin and so much paper as will be determined by the laws of trade. The people, through their deposits, will take so much of it in coin and so much in paper; and the whole problem, it seems to me, is involved right in that. If the whole circulation is sufficient to take care of deposits, that is of discounts, which are the principal source of deposits,

and not excessive, then, when the circulation is made convertible, it will still be adequate for deposits. The whole question is one of proportion of coin to paper in the circulation.

Mr. EWING. And the coin must come from the Treasury?

Mr. WARNER. The whole of it except what the banks may chance to have at the time.

Mr. EAMES. Under what obligation is the government to pay other than its own debt?

Mr. WARNER. It has no other obligation. But if it reissues its paper, the power to repeat the demand on the Treasury for coin is renewed just as often as it is reissued.

Mr. EAMES. As far as the legal-tender notes are concerned, the extent of the obligation of the United States is about three hundred and fifty million dollars, is it not? I mean to say that the United States government is under no obligation whatever in regard to national-bank notes, deposits, or anything else.

Mr. WARNER. No, sir; but this will be the result: If, out of a total currency of seven hundred and fifty millions, three hundred and fifty millions of it is coin and the balance is retained as paper, then what paper is retained as currency will certainly be national-bank paper, and the paper retired will be the greenbacks, and the government must provide the coin for taking up the greenbacks, and in doing so will provide the coin for circulation and for the bank reserves.

The committee took a recess for an hour.

WASHINGTON, D. C., *April* 23, 1878.

A. J. WARNER recalled.

Mr. EWING. What do you think has been the effect of the resumption law upon the industries and productions of the country?

Mr. WARNER. I think the effect has been to greatly lessen the total production of the country, and greatly to lessen, if not to stop altogether, the increase of national wealth. It may not be easy to determine the amount of the loss with any close approximation to correctness, and yet there are data which afford, I think, some fair grounds upon which an estimate may be based.

But first I will state what I have found in my experience to be the effect of the diminution of the volume of money under the resumption act, and the consequent increase in value, upon the industries of the country, and upon business generally. A thousand, ten thousand, or a million dollars, or any other sum of money, locked up in the vaults of a bank, or for that matter buried in the earth, four years ago, when contraction of the money volume began, and now dug up and invested (taking the average of the value of property in the country, at least in the State of Ohio), will buy more than twice as much as it would have bought when it was buried; that is, money has grown, as it were, not by use or by the accumulation of interest, but through increased purchasing power given to it by legislation, contracting the volume and increasing thereby the value of the money remaining.

Mr. EWING. You speak of this as an effect of the resumption law.

Mr. WARNER. Yes. I speak of the operation of the resumption law and other monetary legislation. If the same sum of money, instead of being buried in the ground or kept from use in any other way, had been invested in property at the time it was buried, or had been employed any time since in sustaining industries, the consequence would have

been that half of it would have been lost. It is plain enough, therefore, to see that that road leads directly to bankruptcy for those who continue to employ money in sustaining industries. The operation may be more particularly explained in this way: Manufacturing establishments, such as mills, factories, furnaces, &c., where capital is gathered in large amounts for the erection of such establishments and for machinery, tools, &c., designed for reproduction, necessarily produce from month to month beyond the orders they receive. If they did not, they would find themselves, part of the time, out of work, and would not be ready to answer immediate demands. The cost of producing the goods any establishment turns out is estimated from the cost of the raw material at a given time, the cost of labor, &c., and manufacturers calculate upon a given market price for their commodities and upon given profits. But they find that as money increases in value other things decline. The meaning of increase in the value of money is that it will buy more, or that goods have fallen. They find, therefore, at the end of the month, or of two or three months, that their productions in excess of immediate consumption—using the word consumption in the economic sense—are worth less than they cost them. They then make a new calculation; they find that raw material has fallen, and they cut down the wages of labor and try again, thinking that, having cut down to the new level, they may safely go on again; and they go on for a time producing as before. The same thing occurs over again. The product of their invested capital and the wage-fund they had to provide have yielded only loss. The commodities they produced have fallen again as money has continued to rise, and they find further loss as the result of their operations. They either go over the same ground, perhaps making half-time, or they suspend entirely. And the suspension of operations by factories, mills, furnaces, &c., where tools and machinery become necessary supplements to the hands of man, involves, of course, the idleness of labor. Only the most favored establishments in the various industries live at all, and none escape loss.

Now, the relation that labor, in point of value, bears to productive capital has been variously estimated. According to the Census Report of 1870, the total capital invested in manufacturing, mining, and fisheries is only twenty-one hundred and eighteen millions of dollars—leaving off the thousands—or about $1,000 capital to a laborer; but the superintendent of the census, remarking upon the difficulty of obtaining correct reports of capital invested in the various industries, observes: "This sum is probably not one-fourth the amount actually contributing to the gross product."

Pursuing another line of inquiry, and taking such industries as I have had some acquaintance with, I have found that the different kinds of industries vary very considerably as to the amounts of capital invested to a laborer employed. Certain classes of manufacturing industries have less capital in the form of real estate, machinery, &c., or as a wage-fund, than others. The proportionate amount of capital, in the form of real estate, machinery, tools, wage-fund, &c., to a laborer will vary from $1,000 to $4,000. Wood-working establishments have less capital in proportion to labor than the iron industries; but from two to three thousand dollars, in the various forms, to a laborer, will probably be within safe limits.

The number of hands employed in manufacturing in 1870 was 2,053,996; wages paid, $775,584,343. The gross product of all the capital and labor employed in manufacturing, mining, and fisheries, for that year, as given in the Census Report, was $4,232,325,442. Suppos-

ing the total capital invested in manufacturing and mining to be three times that given in the Census Report, it will approximate the estimate before given of $2,000 to $3,000 of capital to a man. The value of farm products, including betterments of stock, &c., was $2,447,538,656, or a gross total of products for that year, as measured in the currency as it then stood, of $6,679,864,098. The average production per man for capital invested in manufacturing was $2,115. The average wages paid, according to the figures of the census, was but a little over $400 per individual for all classes employed.

Now, we may reason either way—that is, take a given amount of capital as idle and determine from that the number of laborers idle and the loss of production in consequence; or assuming a given number of laborers to be idle, we have a given amount of idle capital, and from that we may derive the loss. It is proper to say, in this connection, that in this estimate of capital employed in reproduction, there is no account taken of the productions which are the result of workmen who employ their own capital or such as work at their respective trades as day-laborers or in their own shops, &c.

Mr. EWING. The larger establishments only are taken into account?

Mr. WARNER. The larger establishments only; and if we assume that $3,000 of capital are invested for every laborer employed in manufacturing establishments, and assume that one-third of the capital so employed is idle, which I do not think is an overestimate, then we have about three-quarters of a million of men, on the average, forced into idleness because of the enforced idleness of capital. Allowing $2,000 as the value of the gross annual product of one laborer and the capital employed with him, which is less than the average in 1870, and we have a direct loss, resulting from forced suspension of capital and the enforced idleness of labor of $1,500,000,000, in the manufacturing and mining industries alone. But even here there is a further permanent loss in the rapid decay of this kind of capital. Moreover, such establishments, when forced into liquidation, are often in a large degree a final loss.

It is generally estimated that a larger number of laborers than I have given are idle, and if we take into account the large number that work independently as day-laborers or on repair-work and in their own shops, and take into the estimate those who work but part time, I doubt not the number of those who are idle, or the average number of idle days, will be largely increased, and that the loss to the nation is actually greater than the foregoing figures make it. This does not include any loss in agriculture. I have not supposed there was any enforced idleness there. That department would be the last to feel the pressure, and for the past two years good crops and foreign demand growing out of war has kept up this industry.

The reason why labor is forced into idleness when capital is idle is very apparent. Labor and capital, as modern industries are carried on, are so combined, that capital cannot be employed without labor nor labor without capital; a machine cannot be used without a man to run it, and *vice versa*. When the machine is idle the man cannot be employed, partly because he has learned nothing else and partly because almost nothing is done without a machine. If his occupation is to weave cloth with a loom he can weave only with his loom, by the power of steam or water; he cannot go out by himself and set up a loom of his own. He cannot live by making cloth by hand. A boy who has learned to tend a nail-machine must stop work when the machine stops; he cannot make nails without it; he cannot go out and make nails in the old way; he has never learned such work, and could not live by it if he had; making nails with a machine is his trade. The capitalist owns the

machine, he owns his hands; and, so far as his work goes, the machine is as much a necessary part in the production of nails as his hands are, and even if he should undertake to learn something else, he will find that the same cause that operated to throw him out of that particular employment has turned others out of other employments, and there is no room for him. All trades are alike overfull when prices are falling. If he turns to the country, hoping for relief on some farm, he finds that improved machinery has kept pace with agricultural wants, and although there is less enforced idleness in agriculture than elsewhere, nevertheless there is not room on farms for the many forced out of other departments of labor, and owning no land himself, and having nothing with which to buy any, he finds little relief. Therefore, when capital is forced into idleness, labor is necessarily idle with it, and that without any fault of the laborer; while his own wants, and, albeit, that of his family too, continue all the same.

And this, I charge, is the direct and natural consequence of the appreciation of money under the resumption act and the act demonetizing silver and other legislation which, diminishing the volume of money, has increased its value.

That increase going on from year to year in the value of money, and decrease in the value of everything but money and investments that share the enhancement of money, has made it certain that, if employed in production, some part of the capital so employed would be lost. Money put in with capital in other forms as a wage-fund, is almost certain, under such a monetary policy, to be lost.

It therefore follows, as a consequence of this legislation, that it is profitable to bury money in the earth, and hazardous to employ it in producing wealth. It is the buried talent that, under such a policy, secures the reward.

The same cause is operative in other countries, though to a less extent, and produces like results. The appreciation of money, effected by legislation, is cause sufficient to account for the depressed state of trade in other countries as well as our own. The false and mischievous theory of "overproduction" was long since exploded, and "want of confidence" explains nothing. The difference between an increasing and decreasing volume of money for a country growing in population and wants is incalculable. Hume was right, and Alexander Baring right in quoting him to the parliamentary commission of 1819. In no other question has mankind a greater interest.

As to the extent of the loss to the country through non-production, if we take the figures before given, of $3,000 capital, on the average, to a laborer, and take $2,000 as the value of the products of this capital and labor combined for a year, then with 750,000 laborers idle we have the enormous sum of $1,500,000,000 as the loss of wealth to the nation from non-production in a single year. Or if we count that a million men are idle, which is much less than the usual estimate, then the loss would be $2,000,000,000 (a million of men, in 1870, produced more than $2,000,000,000), which is more than double the net savings of the nation in the most prosperous years. At $1,500,000,000 we have for four years a loss of $6,000,000,000, or with $2,000,000,000 a year a loss of $8,000,000,000, since the passage of the resumption act. If our productions had been two thousand millions more each year, probably one-half of that would have been consumed in better living by laborers and others whose living has been reduced to the barest necessities, and the rest would have remained as so much permanent addition to the wealth of the nation; and the country is less able, by the amount of this les-

sened production, whatever it may be, to pay its debts than it would be with it as an addition to its present wealth. On the other hand, the burden of debts has been increased by the whole amount of the appreciation money has undergone. That is, the debt burden has increased by the appreciation of money, while the ability to pay has been lessened by diminished wealth.

Mr. EWING. Have you taken into account the loss from idleness of laborers not connected with the large establishments?

Mr. WARNER. Not in these estimates. The loss by only partial employment of that class of mechanics and laborers not connected with established industries, such as carpenters who work about, maintaining, keeping in repair, and producing on their own account, has been certainly considerable, probably as much as one fourth of the whole amount of such labor; but as to the value of their products, I know of no reliable statistics covering the subject.

If you extend the investigation from manufacturing and mining to agriculture, the loss there, I take it, has been very slight, if anything. This industry, at least for the last two years, partly in consequence of foreign demand for breadstuffs, occasioned by the war in Europe, has kept employed the usual number of laborers. Besides, a given amount of labor in the field of agriculture will produce a great deal more one season than it will in another. On the whole, therefore, I think a loss of $1,500,000,000 to $2,000,000,000 per annum, since 1873, through non-production, as a consequence of a continued increase in the value of money, would not be an overestimate.

This sum, as I have said, is considerably more than has been the average annual savings of the nation. By that I mean to say this: If, in 1870, the gross production of the United States was $6,200,000,000, the cost of keeping up the pre-existing wealth of the country, the cost of maintaining the population being deducted, then the residue would be national profit or net gain.

Mr. EWING. Mr. Wells put it at between seven and eight hundred millions per annum.

Mr. WARNER. I believe those are his figures. Probably in no one year has the nation reached a net saving of the lowest estimate of loss, or $1,500,000,000, and on an average not much beyond half of that amount.

If this reasoning be correct, then we have not only had no net savings since 1873, but have been actually consuming some part of previously accumulated wealth.

Mr. EWING. Living on our own capital?

Mr. WARNER. Yes, sir; living on our pre-existing capital. And that involves another consideration, which is worthy to be noticed. That is, that the large increase in the value of money, or, as we may call it, the gain to holders of money and public securities that share the enhancement of money (which gain has been very large for that class), there being no net national gain from which to derive this increase, must necessarily measure a corresponding loss to another class. Therefore the net result of legislation increasing the value of money may be summed up thus: A contraction of the currency volume of $85,000,000 has cost us in loss of production from six to eight thousand millions of dollars, and in loss of national wealth say one-half to two-thirds of that amount; because if the million or more of idle laborers could have produced more, they would have consumed more, and the whole difference would not have been net savings. There is a further loss, not measured in money—loss from demoralization of labor, the increase of crime, and

the deterioration which idleness engenders—but it is by no means without its significance.

Mr. EWING. You commence with 1873, but attribute this loss wholly to finance legislation.

Mr. WARNER. Yes, sir.

Mr. EWING. I wish you would explain your reason for that.

Mr. WARNER. I commence with 1873 because, notwithstanding there was heavy contraction in various ways, rather of an indirect than a direct nature, prices and the value of money previous to that year were pretty generally sustained by credit, and especially by a very large inflow into this country of floating capital in various forms, which came here in exchange for bonds and other forms of indebtedness that we sent abroad. I think this inflow of foreign capital was one of the principal causes of the maintenance of prices up to the period of the panic; and this is a consideration which I think has been rather lost sight of. This capital supplied the place of other forms of credit that had been made use of as money, as that was withdrawn, and sustained prices and business.

Mr. EWING. When you speak of other forms of credit used in lieu of money you refer, I suppose, to the interest-bearing legal-tender notes of the government?

Mr. WARNER. Yes, sir; such as the demand notes, certificates, temporary interest-bearing bonds, compound-interest notes, &c.

Mr. EWING. All of which performed to some extent the office of currency?

Mr. WARNER. Undoubtedly; and helped to sustain prices, though not to the full extent that the same volume of actual money would have sustained them. Nor do I wish to be understood as advancing the opinion that foreign floating capital made up entirely for the government currency retired; but, I think, it was the chief reason why prices did not fall before.

Mr. EWING. Because they were in use sometimes as investment and sometimes as currency?

Mr. WARNER. Yes, sir. I would draw a distinction between the effect of money and the effect of credit on prices. I would admit as coming within the true definition of money, metallic money and paper, whether bank-notes or government issues; anything that has general acceptance in the final discharge of obligations; and I make this distinction between money which has general acceptance in the payment of all obligations, and mere instruments of credit, and substitutes for money, which, while they may discharge obligations, have no such general acceptance, and which, while in some degree they take the place of money, nevertheless pass as such only within a limited sphere, or between few individuals, or in restricted channels, and are not generally accepted as final payment. In other words, money proper may be said to exert a constant pressure in maintaining prices, a pressure that is unintermitting, and acting in all directions. While substitutes for money—forms of credit that may largely supplement and take the place of money, are intermittent in their effect upon prices, and exercise, I conceive, a much less force than money proper. These substitutes for money, these forms of credit, and credit itself, while they may and do largely at times supplement the volume of money, at the same time owe their stability and efficacy to the quantity and stability of the volume of money upon which they depend.

Mr. EWING. To what extent do you attribute to the resumption law this loss, so far as it has occurred since the passage of that law?

Mr. WARNER. I regard the resumption policy, coupled with silver demonetization in this and other countries, as the sole cause of the loss in production and the depressed condition of trade since 1874. In my view, this condition is the direct and necessary consequence of these acts. It is what would be expected to follow *a priori* from settled principles of monetary science. From like legislation in future like results must flow, whether such legislation be enacted ten, fifty, or a hundred years hence. Always, legislation that causes money to appreciate in value, causes other things to decline, and makes it profitable to hoard money for the growth it makes, and correspondingly unprofitable to use it, and this must always be so. Money is the life-blood of industry, and when it increases without use, then it leaves the veins and arteries of trade, and gathers in money centers, while industries are left to die out of syncope.

Mr. EWING. Supposing that silver had not been demonetized, and the resumption law had not been passed, how much of this loss would have occurred since 1875, from causes other than those of which you have spoken?

Mr. WARNER. With the cessation of the inflow of foreign capital, and with the other causes culminating in the panic there would have been a temporary check; but if there had been no subsequent adverse legislation, that is, if the resumption act had not been passed nor silver demonetized, I do not think we would have sustained altogether more than a half year's loss, instead of the four years of loss which we have now sustained. Indeed I believe that the effect due to the panic had been mainly dissipated before the middle of 1874, and that the subsequent decline of business has come from the reduction in the quantity of money and increase in its value that has followed the resumption and silver-demonetization acts.

Mr. EWING. Mr. Sherman, in his statement to the committee, attributed the mischiefs which we have suffered since 1873 to the fluctuations of the currency, arising from its not being redeemable in coin—he called it inflation—but at the same time said that we would have a larger volume af currency as soon as we reached resumption, and that that would be healthy inflation.

Mr. WARNER. The assumption that our currency has fluctuated in value since 1873 is one which I cannot accept as being a correct deduction from known facts, or as in accordance with known principles of monetary science.

Mr. EWING. On the contrary, it has steadily increased in value.

Mr. WARNER. It has not "fluctuated," it has steadily increased in value as its quantity has been lessened. Not only has our paper currency increased in value toward the level of gold, but the value of gold itself, in consequence of silver demonetization and in consequence, too, of the withdrawal of paper from use, not only in this but in other countries, has risen very considerably as compared with commodities generally. When there has been a *general* fall in prices as compared with gold, it would be more correct to say gold had risen, as John Locke two hundred years ago said (I may not give his exact words, but nearly): "When the same quantity of money is passing up and down the kingdom in trade, then any variation in price between commodities, one with another, is truly a variation in the commodities themselves, but when you change the quantity of money that measures the value of the commodities then the alteration is in the money and not in the commodities." I regard that as a true statement of the fact, and one entirely consistent with the principles of economic science. Hence, I do not think it can

be properly said that there has been a "fluctuation" in currency when there has been a steady rise: and that rise will go on as long as the quantity of money as compared with the quantity of commodities, and transactions is lessened. An inconvertible money can be made to fluctuate only by increasing and decreasing its quantity in a ratio different from the increase and decrease of commodities and transactions.

Mr. Ewing. Referring now to your data as to unemployed laborers, it seems to me that they indicate a much smaller number of the unemployed than is shown in fact.

Mr. Warner. I know it is below that generally made, and I think it under rather than over; but results multiply so fast that I have felt constrained not to risk much outside of authenticated data.

So great would be the loss upon the general estimate of three millions of laborers idle, with a proportionate amount of capital in suspension, that it almost staggers one, and yet I should be quite ready to expect, if all the facts could be known, that the total loss was in excess of, rather than within, the limit I have given. That is to say, taking $6,200,000,000 as the value of the gross products of the country in 1870, and allowing that in a healthy condition of trade the rate of increase would have been as great on the average as in the decade preceding 1870, we ought to have a gross production of nearly $8,000,000,000 for 1877, measured in the money of 1870. If it does not reach $6,000,000,000 measured by that scale, or say $4,800,000,000 measured by the money of to-day, then the loss has been greater than I have given. If the surplus in agricultural products, due largely to the season, be deducted, then it could be shown, I think, that we have not produced commodities worth, in our present currency, $4,800,000,000, and if not, then the loss from idleness of labor and depressed business was more than $2,000,000,000 in 1877. Indeed I am ready to admit that, so far as I have seen statistics, data are wanting to establish a gross production for 1877 of even $4,000,000,000. This sum, and more than this, would be required to maintain pre-existing accumulations and support the population, some part of which would find then but meager support.

Mr. Ewing. What estimate have you of the amount of debts in the United States of all kinds, public and private?

Mr. Warner. The public indebtedness, national, State, and municipal, is somewhere between four and five thousand millions. As to corporate indebtedness, there has been a good deal of that practically wiped out in the last three or four years through insolvency, but in 1875 it was probably not much less than the whole public debt. The indebtedness of railroads in 1875 was about $2,500,000,000. Perhaps $1,000,000,000 will cover other corporate indebtedness, not including banks.

Mr. Ewing. Now as to private indebtedness.

Mr. Warner. Private indebtedness secured by mortgages was over $2,000,000,000 in 1876. It has increased since, and if to this be added loans made on personal securities, the total would hardly fall below the public or corporate indebtedness.

Mr. Ewing. You would make the aggregate, then, about what?

Mr. Warner. The aggregate would range from ten to twelve thousand millions; that is, more or less permanent.

Mr. Ewing. State what has been the effect of this resumption law upon the debtors.

Mr. Warner. The effect upon the debtors of the country, especially those debts created on the basis of a full volume of money consisting of gold, silver, and paper, as it existed in 1874, has been, of course, to

double, and, as compared with many kinds of property, to more than double, the value of money and the burden of debts as compared with the means of paying them. So that practically, taking the State of Ohio by way of illustration, more than twice as much property, on the average, is required to pay a debt now as would have been required at the time the debt was created; that is, there has been, in effect, a change in the measure since many of these debts were created amounting to 50 per cent. or more. The debt was created according to one scale, and the effect of legislation has been to apply to property taken in payment another and enlarged scale.

Mr. EWING. So much for individual debtors. Now, what is the effect as to these corporate debts?

Mr. WARNER. The effect, practically, is the same, except, perhaps, in the case of railroads. The effect on railroads has been not only to increase the burden of the debts, but the continued increase in the value of money has operated to cut down their business very largely, and to lessen their earning power; and hence a very large number of the railroads of the country are bankrupt, and more must become bankrupt if the present monetary policy is continued one or two years more.

Mr. EWING. State the effect upon the tax-payers.

Mr. WARNER. The effect upon the tax-payers is the same. The number of dollars required for taxes remains about the same, both for public expenditures and interest on public debt; for expenditures have not been cut down; but it takes twice as much property, twice as much labor, or the products of labor, to pay the same number of dollars of taxes. Then, again, the amount of taxable property becomes less each year as the shrinkage goes on. In my own town there has been a reduction in the personal property of about 40 per cent. since 1873, and if a reappraisement were to be made of real estate, that would be reduced in about the same proportion. The result is, the legal limit placed on taxes will not permit a sufficient sum to be raised to pay necessary expenses and interest on the municipal debt.

The same increase of debt burden is felt in the payment of the public debt. It is not merely a change in the value of paper money, but gold prices have changed nearly as much. For instance, if we suppose the interest on our debt held abroad in 1873 to have been a hundred millions, and to have been paid entirely by the exportation of cotton, it would have taken in that year (taking the Liverpool price at 10½ pence for the best grade, or, say, 21 cents at New York) about one million and sixty-six bales to have paid that entire interest; but in 1877 (last year), it would have taken to pay the same interest, at the prices then ruling for cotton, about eight hundred thousand more bales, or one million eight hundred and sixty-six thousand bales.

Again, it is estimated by Mr. David A. Wells that the total taxes paid in 1870 in the United States amounted to $750,000,000. If the taxes for that year had all been paid by the sale of cotton, it would have taken about eight millions of bales, but at the price now ruling, or ruling in 1877, it would take fourteen millions of bales. Taking pig-iron and comparing in the same way, it would have taken in 1873, at the prices then ruling, about twenty-eight millions of tons; it would take now over fifty millions of tons, or nearly one hundred per cent. more.

Mr. EWING. That is, taking the New York price.

Mr. WARNER. Yes; I take the New York price.

Mr. EWING. What do you anticipate is to be the injury to our industries in the future from the execution of this resumption law?

Mr. WARNER. If the resumption law is to be executed, and resumption is to be actually accomplished, and coin is to be substituted for the paper currency now in use, as I have explained, to the extent the people may prefer coin, I can foresee no other result than that of a continuance of the present state of affairs—that is, a continued increase in the value of money and decline in prices until the end is reached by establishing a state of equilibrium between coin and paper, with the possibility, moreover, of convulsions. For I repeat that to destroy two or three hundred millions of the paper money now in use and buy coin from other countries to take its place can have no different effect on prices and business from that produced by sinking in the ocean so much coin, if that were now our currency, and buying more coin from other countries to take its place. To appreciate better the necessary effect here, consider what would be the effect in England of annihilating three hundred millions of her gold and buying with commodities, or with bonds, as much more from other countries to take its place. The two operations would be perfectly analogous.

The state of the public mind must be considered, too. I think that any one who mingles much with the people of the country, and especially in the West, finds that a deep sense of wrong pervades the country, and is increasing in intensity; a feeling that the interests of a large class have been disastrously affected by monetary legislation, enabling another class, whose wealth is in money and such securities as share the enhancement of money, to derive enormous increase—an increase which necessarily (there being no net national gains from which to derive it) measures a corresponding loss to another class. I think it is very evident that that feeling is not only increasing in intensity, but is becoming more widespread.

Mr. EWING. Through how long a period would you expect that these low prices would continue if the resumption scheme is attempted?

Mr. WARNER. Well, judging from the experience of England, I should expect it would take from eighteen months to two years after resumption has begun to reach a state of equilibrium in the currency, and if an adverse balance of trade, arising from failure of crops or any other cause, or if the interest on bonds held abroad, or a special demand for the precious metals from any other cause, should drain away a part of our coin, then the time would not only be prolonged but the effort itself must fail. It is very unsafe to rely on such harvests every year as we had last year. We are as likely to have 75,000,000 bushels of wheat below an average as above, and such a year is as likely to come next year as any time. We do not, on the average, have five years in a century like 1877. I should look, however, for a temporary reaction upon the initiation of resumption. When it begins and coin is first paid out, the tendency will be to relieve currency that has been kept from circulation. The belief that now seems to possess the country, that the equalization of paper and coin is the accomplishment of resumption, may also lead, for the time being, to the investment of money on the supposition that the end has been reached. But when it is found that the accomplishment of resumption involves a change in a part of the currency from coin to paper, leading, probably, to an early adverse balance of trade, then I should look for a more rapid reaction in the other direction, with, very probably, convulsions.

Mr. EWING. You state that you do not believe resumption to be practicable; that is, you think the Secretary will break down.

Mr. WARNER. I recur to my general proposition that neither the Secretary nor the Secretary and the banks together, by any co-operation

between them, can possibly maintain the present volume of paper in circulation and make it readily and easily convertible. It is absurd to propose to have all the currency paper and still make it convertible, and that is about what seems to be expected. If the Secretary and the banks have only to look to their reserves, and if with $150,000,000 of coin reserves they can float $650,000,000 of paper, then on the same principle with $350,000,000 of reserves they could float $1,300,000,000 of paper. It is absurd. They must look beyond the reserves to the state of the whole circulation and know that when paper is made convertible that there is a limit to the total volume of currency that will stay in the country. I have no hesitancy in saying that such an undertaking will sooner or later break down, and the fear is that it may break the country down too. I believe, at the same time, it is *possible* for the Secretary to accomplish resumption, and for a time, perhaps a number of years, maintain it, but only by retiring the paper; and what that involves to the country I have stated.

Mr. EWING. What do you call resumption?

Mr. WARNER. By resumption, as I think the Secretary will have to practice it, I mean redeeming the paper as presented. The Secretary may also buy greenbacks with bonds and burn them up. If he destroys all the greenbacks presented the coin paid out will doubtless remain in circulation, and coin will also come in from abroad if there is any vacuum, unless national-bank issues are extended. You can accomplish resumption in that way and maintain it until the balance of trade, or our debt abroad, or convulsion, panic, bad harvests, or other adverse conditions turn things against us. The maintenance of convertibility of paper will always depend more on the quantity of paper than on the coin reserves. But if, as suggested in the question of Mr. Eames, the paper be kept out, by bringing its legal-tender power into operation, or by otherwise preventing free convertibility, then, I repeat, the coin will be driven away; because if the channels of circulation are already full, no more currency, if convertible, will remain here.

Mr. EWING. How is it possible to prevent free convertibility under a system of resumption?

Mr. WARNER. Resumption, of course, fails when paper is not readily convertible. Nevertheless, in 1862, when greenbacks were paid out, they were paid out as promises to pay, and kept in circulation per force of being legal-tender, and being made money; and the same thing may be done over again. The banks, by combining, may undoubtedly make use of a certain influence against a demand for coin, as under the old system the banks always exerted more or less influence in that way.

Mr. HARDENBERGH. Cannot the government resume of itself without the national banks?

Mr. WARNER. The government can take up greenbacks with bonds, or buy bullion and coin it and redeem and cancel them; but the government cannot make greenbacks convertible into coin at the will of the holder, and then keep in circulation $350,000,000 or $300,000,000 as a system of currency independent of bank currency. While the national banking system exists, the government cannot separate its own issues from the issues of the banks, and separately maintain resumption. I think it is very plain that, first, banks will not, as they need not, look elsewhere but to the government for their specie, which the instrumentality of the greenback affords them ample facilities for doing; and, second, that the paper retired, in order to maintain the convertibility of the whole, will be the greenbacks.

Mr. EWING. You said at the meeting on Monday that the repeal of

the resumption law, or some modification equivalent to a repeal, was necessary. What modification do you suggest?

Mr. WARNER. The absolute repeal is best.

Mr. HARDENBERGH. What action do you propose Congress should take whereby confidence may be so far restored as to invite capital into such ventures as will give employment to labor?

Mr. WARNER. First, repeal the resumption act and stop the further alteration in the value of money. The alteration in the value of money, as it has been going on for years, has been the one source of evil. Confidence is a consequence, not a cause; it is a creature of success, and will return only when success in business is the rule and not the exception. If it were known to-day that there was to be no more contraction of the currency, no attempt at substituting coin for paper, and no more hoarding of coin for that purpose, confidence would appear again and industrial life revive immediately.

Hence, taking in view the present condition of affairs in the country, and considering the whole question practically, I should say, repeal the resumption act first, and limit the volume of paper money substantially to its present volume, and thereby preserve the equality of value between paper and coin. It is a principle as well settled as is anything in monetary science, that, by limiting the quantity of paper money to a volume less, or not greater, than we would have of metallic money if there were no paper, or than would be our share of the currency of the world, then the paper volume would have the same value so much coin would have, and would stand at a level with metallic money. It is a mistake to suppose that the equality of value between metallic and paper money can be secured in no way but by convertibility. It can be secured as well, and more certainly, by arbitrary limitation of quantity than by the *promise* of convertibility. Indeed, Peel's act of 1844 was, in effect, an assertion founded upon the experience of England with bank issues, that the promise of convertibility alone could not be relied upon to secure equality of value of the bank-note with coin, even with but *one* issuing bank, and that closely allied to the government, and the principle of *arbitrary limitation* was accordingly established by that act to secure convertibility. The same principle, with an elastic margin or limitation, has been incorporated into the German system. I cannot think, therefore, that an economist or statesman could be found in Europe who would stand by a proposition to maintain the equality of value between paper and coin by the promise of convertibility alone, with two thousand or more independent issuing banks. It has failed in other countries. It has periodically failed here. No other country, except Scotland—if that be an exception—relies upon the principle of convertibility, or rather the *promise* of convertibility, alone to secure equality of value. We have many times passed through Lord Overstone's cycle in this country, relying upon the *promise* of convertibility of independent banks, and I see no reason to believe the principle will work differently in the future. By limitation of the quantity of the paper to a volume not greater, as I have shown, than would be our distributive share of the money of the world, and its value is at once secured. With this principle in force the currency would now stand, say, $650,000,000 of paper, $50,000,000 of subsidiary coin; with, say, $50,000,000 on the Pacific slope, and elsewhere in hoards, and then if the channels were not filled to the level of the currency of the world, coin would come in to fill up the vacuum.

If the restriction on the quantity of silver were removed and paper limited to the present volume, then coin would now flow into the coun-

try. The fact that silver bullion is at a discount now as compared with paper affords abundant proof of this proposition; on the other hand, if the government continues to buy silver bullion, and to coin it after the bullion and coin are at par, then silver coin will leave the country. Or, to state in a sentence my proposition; limit paper to its present volume, until some safe principle for regulating issues of paper can be adopted, remove the restriction on silver coinage, and with the doors full open to both the precious metals, if we need more money get it from the precious metals, precisely the same as if all our money were coin now and we wanted more. This will stop contraction and the further alteration in the value of money; will wrong not a being, while the policy of further contraction involved in the resumption scheme, and the substitution of coin for paper, cannot otherwise than work yet infinite wrong to multitudes of people.

Then the whole currency, paper and coin, would vary precisely as though it all consisted of gold and silver. Now, I do not say that a metallic currency, or a currency varying precisely as a metallic currency would vary, best preserves stability of prices, but it certainly much better preserves stability than does or will a currency issued under our present national banking system. There would be greater flexibility even in a purely metallic system than our present national banking system affords. Under that system the flexibility of the old State bank issues is taken away. A given amount of currency is issued, and that remains outstanding or issued the same for all seasons of the year. Under the old banking system, or "the Scotch system," banks adapted their currency to the varying needs of their respective localities; they increased it at one season and decreased it at another, having in view only the probable demand on them for coin. That is the case with the Scotch system now.

Let me illustrate this. In Cincinnati, in December, during the pork season, there is an extra demand for several millions of currency. With a purely metallic currency, it would have to be gathered up from other parts of the country or brought in from abroad. It may be wanted in other places, too, at the same time. The scarcity created by the increased use for money at that particular season, arising from an increased amount of products, embarrasses trade and affects prices. Now, under the Scotch banking system, the banks of Cincinnati, having in view only the probable demand that would be made upon them for coin, issue their notes to dealers in produce, taking in return the notes of the produce-dealers, on the theory that when the notes of the produce-dealers are paid to the banks they will be paid in the banks' own notes. If they are not, they are paid in the notes of other banks, which are exchanged for their own notes; or if paid in coin, then the bank-note is safe. The effect is that that particular work is performed by credit instruments alone, which are created for that particular use, and are extinguished when it is done. There is a great gain in such flexibility in any money-system. A purely metallic currency does not afford it, and that is perhaps its one defect. But much less does the present national banking system afford it. Under this system, if an increase of currency is wanted in Cincinnati, before the banks can issue it they must purchase bonds in the market, send them to the Treasury in Washington, and have the notes issued; and when the notes are once out, they are out for all seasons—when they are not wanted as well as when they are. Therefore, there is less flexibility, less adaptation to our local wants in the national banking system than there would be in a purely metallic currency.

And here, taking into full consideration the present situation of affairs, the different views held in the different sections of the country, and the unsettled state of the public mind, *as a practical solution of the immediate question* before the country, and one on which different opinions might be harmonized, I recommend and urge for the consideration of the committee, and upon Congress, the adoption of the principle of limitation to be applied to the volume of paper, for the preservation of the equality of value between paper and coin. This would, of course, involve the arbitrary limitation of bank issues.

The ultimate question of the regulation of paper issues, by which the ratio between the quantity of money and its use, or the quantity of commodities and transactions, may be kept more stable than under either the metallic or national banking system—while perhaps the most important question pertaining to economic science, not only for this country but for the world—the country is not prepared to act upon now, and on this point I am not prepared to express any opinion.

The constant factor in the equation of currency should be the *ratio* between quantity of money and quantity of commodities and transactions. Then you have stability of prices.

Mr. HARDENBERGH. Would not the national prosperity be promoted by a complete separation of the national government from control of the currency and leaving it to the States? Why should not the 10 per cent. tax on State banks be rescinded?

Mr. WARNER. I would say, substitute greenbacks, or United States paper in some form, for national-bank notes, both because this system is an expense to the whole people, and a profit to a few, for which they have no right to ask, and which the public are under no obligation to concede; and, second, because that system, as it now stands, is so wanting in flexibility that it does not perform the function of a good bank-of-issue system. As to a complete separation of the government from the States in the matter of currency, and the removal of the tax on State banks, that is, a returning to the policy of State control of banks of issue, I do not think public sentiment in the country would now favor that. There is, however, an advantage in State banks that the national system, as I have explained, does not possess; and that is, *flexibility* and *adaptation* to local wants; and this is an immense gain to a people; an advantage, the loss of which, I am ready to admit, is not compensated by the uniformity of the currency gained through the national banking system. Flexibility and adaptation to local wants have been sacrificed in the national currency system to security and uniformity.

Mr. EWING. Would you, then, fix the volume of the government paper money at a little below what you consider to be our distributive share of the money of the world, and let the coin flow in to bring it up to the level?

Mr. WARNER. Yes, sir; I think that the best practicable solution now attainable; but I would not lose sight of the ulterior question connected with the regulation of paper money hereafter. I deem that the great question; but it is in the future, and upon that I am not prepared now to express an opinion.

Mr. EWING. What would be the effect if other states of Europe were to demonetize silver?

Mr. WARNER. The effect would undoubtedly be, with our silver law as it now stands, to lessen the quantity of metallic money that would fall to us. But with the restriction on the coinage of silver removed,

it would probably operate to turn the flow of silver somewhat in this direction.

Mr. EWING. Would that be to us a beneficial effect?

Mr. WARNER. I should not think it would have any adverse effect. The best condition, however, would be one of bi-metallism, in a ratio to be agreed upon between the different countries—either fifteen and a half or sixteen. Without silver, or with gold alone as money for the world, I believe all attempts at resumption, or the payment of debts generally, with prices at the level of gold as it would then stand, to be utterly impossible. The credit of the government, after private credit had been generally destroyed, would itself fail, and that a long ways short of mono-metallism for the world, or for Europe and the United States even. All estimates of volume of money I have given are based upon the continued use of both metals as money throughout the world. The share of metallic money that would fall to us with gold alone as the money of the world, would be little, if any, more than half the volume we would have with both metals to draw from; that is, 350 or 400 millions instead of 750 or 800 millions.

Mr. EWING. If other states of Europe demonetize silver and we had ree coinage at sixteen to one, the probabilities are that our metallic currency would be purely silver?

Mr. WARNER. Almost certainly so.

Mr. EWING. What would be the effect upon us if other states of Europe now using an inconvertible paper currency were to return to the coin standard?

Mr. WARNER. To the extent they withdraw their paper, and call upon other countries for the precious metals, just to that extent will it tend to lessen the quantity in other countries, and in the same proportion to increase its value.

If, for instance, at the same time we are hoarding coin, Italy should be doing the same, coin would be scarcer and dearer. The hoarding by the governments of France and Germany at the same time two years ago undoubtedly affected very materially the premium on gold in this country. The premium was higher in this country then than it would have been if there had been no extra demand for hoarding in their treasuries by Germany and France. The rise in the premium here, according to our Secretary and the Comptroller of the Currency, was due to fluctuation in our paper currency, when there was no increase in quantity, and, in fact, no such fluctuation. There was a rise in the value of gold and a rise in the value of paper, and a fall in commodities, all the result of contraction.

Mr. EWING. Will we not have a more stable currency by retaining at least our whole volume of paper money than we would have if we return to specie payments?

Mr. WARNER. I think there is no question about that at all. Our volume will be more stable, as I have said, with the paper limited to any sum less than that which would be our distributive share of the world's money if there was no paper, leaving a vacuum to be filled by the inflow of coin—and it would be more stable than is possible under a state of promised convertibility with 2,000 and more independent issuing banks.

Mr. EWING. Please state your views as to the bill of the Senate Committee of Finance, amending the resumption law, and also the bill proposed by Senator Matthews, if you have examined them.

Mr. WARNER. The proposition reported by the Senate Finance Committee, in substance to retain the present volume of money, I think is

in the right direction, but entirely inconsistent, if at the same time it is proposed to execute the resumption law; and that for the reason already given, that it is utterly impossible to fill the channels of circulation with paper—paper to be kept out by reissue—and then make that paper convertible. Resumption in that way must be on the theory that when left to the choice of the people no part of the circulation would be coin. This, I should say, would be resumption by faith, and might as well be put in operation one time as another. It is plain, however, that if coin is paid out on top of a full circulation of paper, and is not allowed to *displace* the paper, the coin will soon leave the country and convertibility after a time fail. Hence, a proposition to retain all our paper and still go on with resumption can hardly gain general acceptance.

The amendment to the resumption act proposed by Senator Matthews will, no doubt, I think, operate to preserve equality in value between paper and coin; and, after all, this is the great thing to be attained by any plan of resumption. This amendment proposes also to give full money power to greenbacks by making them receivable for customs and exchangeable for four per cent. bonds. It will, in my judgment, be a great gain to permit bonds to be paid for in the currency of the people. Nothing will do so much to bring our debt home and distribute it among our own people. People do not like to buy a thing to get which they must first change the currency they ordinarily deal in into another kind of money. If notes received in the Treasury for bonds were allowed to accumulate, there might be at times heavy contraction; but if greenbacks received for four per cent. bonds are paid out in redemption of 5-20 bonds, contraction of the currency will not only be prevented, but a most desirable means of funding will be provided for. I do not see, however, the necessity of always maintaining intact in the Treasury fifty million dollars. I see no reason why that should not be drawn upon, if need be, for paying interest or other coin obligations.

Resumption, under the proposed Matthews amendment, could, moreover, as well be tried now as next January. If, as the Secretary seems to think will be the case, the people will not take the coin, then the suspension limit provided for in the proposed amendment will not be reached, and, for that matter, more coin to start with will not help the case, if the paper is to be reissued; and the difference between a lawful and a forced and unexpected suspension is worthy the gravest consideration.

Mr. EWING. Would not our currency, with the present volume of paper money inconvertible, be better than a return to specie payments even though all the paper money we issue be government money?

Mr. WARNER. Decidedly so; and I think it would be better if it were all government money. And at that point I am reminded of the recommendation by the eminent writer on money, thinker, and banker at the same time, Mr. Ricardo. On that point his recommendation, I have thought, was a very sound one. His proposition for England, then situated much as we are now, with a large debt—only England owned all her own debt—and with a paper currency, was, instead of taking the capital of the country to procure a gold currency, to make her currency one of paper, and to maintain it at a level with gold bullion by making it exchangeable for gold bullion only in sums of—my recollection is 1,000 ounces.

Mr. EWING. Was it his idea that the whole volume of currency should be paper?

Mr. WARNER. Yes, sir; that the circulation should be paper.

Mr. EWING. The whole of it?

Mr. WARNER. Yes; that the whole of it should be paper, but paper maintained at a level with metallic money. And his mode of maintaining it was by allowing it to be exchanged in large amounts for gold bullion for international trade.

Mr. EWING. You allude to his posthumous work?

Mr. WARNER. Yes, sir; to an essay published after his death. The proposition, indeed, was first published, I think, by Mr. Joplin, but in a different form, but substantially the same proposition, but elaborated by Mr. Ricardo. And I think for us now, in the situation of the country, so overwhelmed with debt—national, State, municipal, and individual—to take from our capital, which we need for productive purposes, to produce the things with which alone we can pay our debts, and convert it into currency—that is, use the capital to buy a currency with to take the place of our paper currency, would be very much like a merchant who, already very much in debt, should take from his capital in trade and buy a gold yard-measure to use, instead of a wooden one of the same length. While he made use of his gold yard-measure he would earn no more, his trade would be no greater than it was when he was using his wooden one. On the other hand, his capital in trade would be lessened by the cost of the gold measure. Of course he could reconvert his gold yard-measure into capital; but so long as he used it merely as a measure, he would be no better off than he would have been if he had not possessed it at all. So with a nation situated as we are. If we convert capital into currency to take the place of a currency that we already have, the result will be that, while we use it only as currency, our earning power will not be in the least increased, but diminished by the cost of the new currency. We may convert such a currency again into capital, as we did in 1862; but a country that is constantly converting its currency into capital, and then capital back into currency, as I have said, is constantly making bad bargains.

Mr. EWING. Can we, in justice to the people, the tax-payers and debtors, change the measure under which the debts were created, by returning now to this gold standard? Is it fair to them for us to do it?

Mr. WARNER. No, sir. It can be justified on no principle of morals or ethics. It is bad economy, and worse in a moral point of view. If Congress should change by a single inch the length of the yard-measure or the standard bushel, the courts would undoubtedly compel adjustment of contracts according to the measure in force when contracts were made. But when you change the value of money by legislation, 50 per cent. or more, as has been the case—a change that must still go on, if the resumption law is executed—there seems to be nowhere a remedy, except in Congress itself; but the injustice and the wrong remain the same.

Mr. EWING. Your illustration of the gold yard-stick does not express the chief objection. There is this additional objection to which we have just referred, that of injustice to debtors and tax-payers, and the further objection that when you get to the convertible currency, you will not have as good a currency as you would have had if you let it remain inconvertible.

Mr. WARNER. I grant that. I only used that illustration to show the bad economy of such a step, to show what would be the direct national loss in the change from paper currency in use to a metallic currency.